

# Army Lodging Wellness Recommendation

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## Final Submittal - Fort Buchanan

May 17, 2004

**3D/I**

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# Section 1 Wellness Recommendation

## Introduction

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The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of the Fort Buchanan Lodging Wellness Plan is to provide a comprehensive assessment and planning tool to support long term capitalization of Army Lodging facilities. The Demand Analysis determines installation Lodging requirements, and reviews off-post Lodging availability and cost, arriving at the most economical solution for meeting total transient requirements and providing a final determination of the appropriate number and configuration of on-post Lodging rooms. Individual Lodging facility condition (building and building systems) and functional assessments are included with both recommendations and costs. Facility improvement and renovation versus replacement/new construction recommendations are developed based on the individual facility assessments and cost. A Lodging Master Plan for the installation is developed including renovation, replacement/new construction, and proposed new facility siting. A final recommendation defines the method for achieving the final wellness solution for the installation and will assist with project planning.

## Methodology

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### ***Demand***

- Demand for Lodging facilities is analyzed and adjusted for atypical past occurrences and for expected changes in the installation's population, housing, or mission. Two primary methods are used to calculate the optimum number of rooms: the number necessary to meet 80% of official demand and the number projected to be the most efficient from an operating cost perspective.
- The off-post private market is assessed for capacity and representative rates. A determination is made if the private market has the capability to handle overflow requirements of official demand.
- Room mix recommendation is based on the segmentation of the Permanent Change of Station (PCS)/Temporary Duty (TDY) mix and the expected lengths of stay. This produces the final determination of the appropriate number and configuration of rooms for the installation.

### **Assessment**

- Existing Lodging facilities are assessed based on building and building system conditions followed by an assessment for conformance to the Army Lodging functional standards. Facilities assessed to be in fair to good condition, and meeting the majority of functional requirements, are considered for renovation. Renovation of Lodging facilities found in poor condition and configured significantly different than current standards will typically exceed 50% of the replacement costs and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons as well as the assessment documentation.
- The age, condition, and existing configuration of two of the existing Lodging buildings support a finding of replacement through new construction in lieu of renovation.
- Force protection construction criteria has a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis, and proposed Lodging construction, incorporates these requirements from the UFC 4-010-01, in our analysis and recommendations. Consistent with this guidance, force protection mitigation is not considered in renovation unless the renovation cost exceeds 50% of the replacement cost for a facility.

### **Demand Summary**

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Due to the near-capacity situation of the private market and the typically very high room rates demanded by these hotels, we recommend the number of rooms provided by the “Most Economically Efficient” criterion. Using this criterion, we expect an average occupancy of 72%, and 100% of the official demand is met.

### **Room Count and Mix Recommendation**

82 rooms

Proposed room mix:

- 38 standard guest rooms;
- 25 extended-stay guest rooms offering a kitchenette;
- 19 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

## Lodging Summary

The following Lodging for Fort Buchanan is summarized by building, including number of existing rooms and number of proposed rooms determined as part of the installation Wellness recommendation. The table also indicates the number of rooms required for a new Lodging facility based on buildings not proposed for re-use due to poor existing conditions and high renovation costs. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
<b>Wellness Recommendation based on Demand Analysis</b>									
						82	38	25	19
<b>Existing Lodging Facilities</b>									
678	44	20	20	4		39	16	19	4
679	10	4	5	1		10	4	5	1
680	11	5	5	1		11	5	5	1
681	10	4	5	1		10	4	5	1
801	2		2			0			
802	2		2			0			
<b>Totals</b>	<b>79</b>	<b>33</b>	<b>39</b>	<b>7</b>	<b>0</b>	<b>70</b>	<b>29</b>	<b>34</b>	<b>7</b>
<b>New Proposed Lodging Facility</b>									
						12			12
<b>Total Lodging Rooms</b>									
						82	29	34	19

### Summary of Room Count and Mix based on Configuration

- 82 rooms
  - 29 standard guest rooms;
  - 34 extended-stay guest rooms offering a kitchenette;
  - 19 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

## Cost Summary

### Project Cost

The following table summarizes the Condition Analysis, Renovation, and Replacement Cost by individual Lodging facilities. The Wellness Recommendation indicates cost by building based on recommendation, including the proposed facility cost.

Building Number	Existing Units						Wellness Recommendation (FY 08)			
	Total Rooms	Condition Analysis Cost*	Upgrade Renovation Cost**	Renovation Cost***	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Rooms	Total Cost	Condition Analysis / Upgrade Renovation Cost	New Construction Cost
<b>Existing Lodging Facilities</b>										
678	44		\$ 1,252,383		\$ 6,052,126	20.69%	39		\$ 1,252,383	
679	10	\$ 239,510		*****	\$ 1,213,639	19.73%	10		\$ 239,510	
680	11	\$ 243,354		*****	\$ 1,471,319	16.54%	11		\$ 243,354	
681	10	\$ 239,510		*****	\$ 1,213,639	19.73%	10		\$ 239,510	
801	2	\$ 244,441		*****	\$ 313,488	77.97%	0			
802	2	\$ 244,441		*****	\$ 313,488	77.97%	0			
<b>Totals</b>	<b>79</b>	<b>\$ 1,211,256</b>		<b>\$ -</b>	<b>\$ 10,577,699</b>	<b>\$ 2</b>	<b>70</b>	<b>\$ -</b>	<b>\$ 1,974,757</b>	
<b>New Proposed Lodging Facility</b>										
							12	\$ 2,463,797		\$ 2,463,797
<b>Total</b>										
							<b>82</b>	<b>\$ 4,438,554</b>	<b>\$ 1,974,757</b>	<b>\$ 2,463,797</b>

\* The Condition Analysis Cost is for making the building well based on Army Lodging Standards without changing how the building functions.

\*\* The Upgrade Renovation Cost includes Condition Assessment items and Upgrade Renovation Cost to meet Army Lodging Standards.

\*\*\* The Renovation Cost is for making the building well based on Army Lodging Standards including making functional changes.

\*\*\*\* If the Condition Analysis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.

\*\*\*\*\* If the Condition Analysis Cost is over 50% of the Replacement Cost, a Renovation Cost is not included.

### Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs compared to the proposed renovation and new construction costs on-post. The renovation and new construction costs include operating costs, capital assessment costs, and sustainment capital expenditures. The following table summarizes this comparison per room for FY08.

	Renovation	New Building	Total
Cost per Room at Fort Buchanan	\$ 76.46	\$ 98.93	\$ 79.75
Off Post Cost per Room	\$ 153.90	\$ 153.90	\$ 153.90
Difference between On-Post and Off-Post Lodging per room	\$ 77.44	\$ 54.98	\$ 74.15
% Savings of On-Post to Off-Post Lodging	50.3%	35.7%	48.2%

The Cost Per Room at Fort Buchanan is based on:

Renovation / New Construction Cost w/ inflation to FY 08

Current Operating Cost w/ inflation to FY 08

Cap Ex Cost

Capital Assessment Cost to FY 08

Off Post Cost is based on current room rate average with inflation to FY 08

Due to this cost difference and the savings of 48.2%, it is our recommendation that the Army construct a new Lodging facility within the new primary Lodging campus area and retain 4 of the existing facilities within this campus at Fort Buchanan in lieu of using off-post lodging to support the determined demand requirement. Off-post lodging will continue to be used for demand beyond the on-post room requirement.

## Recommendations / Conclusions

The Wellness Recommendation for Fort Buchanan is to continue the use of buildings 678, 679, 680, and 681 built as the main Lodging campus and to construct a new building within this same campus area to accommodate 12 family suites for a total of 82 rooms, to meet the 82 room requirement. Existing Lodging facilities that do not meet condition and functional requirements based on cost shall be removed from the Lodging inventory. A synopsis of recommended building actions follows

- Continue the use of buildings 678, 679, 680, and 681 to include 70 rooms. These buildings were built in 1999 as the main Lodging campus and include most of the appropriate support spaces although some guest room sizes do not meet Army Lodging standards. It is determined that renovations to the guest rooms to accommodate demand and/or sizing standards are not viable because of building configuration. Renovations are recommended to accommodate the support spaces that are missing for a main Lodging facility.
- Remove existing Lodging buildings 801 and 802 from the Lodging inventory due to the condition of existing building systems and/or the cost to renovate to meet Army functional criteria.
- Construct a new Lodging facility to include 12 family suites, to be built within the same campus area as the other Lodging facilities that are being retained.

### ***Cost Summary***

The cost for this recommendation will be:

Renovation and Condition Assessment of buildings 678, 679, 680, and 681	\$1,974,757
New Lodging Facility	\$2,463,797
<b>Total</b>	<b>\$4,438,554</b>

### ***Phasing***

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for buildings 801 and 802

- Construct new Lodging facility prior to removing existing Lodging facilities from inventory.
- Renovate buildings 678, 679, 680, and 681 for support space requirements, and condition assessment deficiencies.
- Remove buildings 801 and 802 from Lodging inventory.

## Section 2 Lodging Master Plan



### Installation Summary

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Fort Buchanan is the Army's only active Installation in Puerto Rico and the Antilles. Located in Guaynabo, Puerto Rico on about 700 acres within the city limits of San Juan, Fort Buchanan is a primary site of military services in Puerto Rico, as well as educational, recreational, community and commercial programs in support of military family members and the federal civilian communities. Once known as Fort Miles, the post was re-designated as Fort Buchanan in 1940, when it hosted Antilles Command, a MACOM formed during the pre-World War II buildup. Fort Buchanan also supports 32 federal agencies stationed in Puerto Rico and the US Virgin Islands.

Although an Installation Design Guide is not available, Fort Buchanan has developed specific master planning guidance for the installation and a specific Lodging Master Plan to incorporate current and future planning requirements. Current Lodging room night requirements, Army guidance on Lodging facility design standards, and force protection construction standards require additional analyses and are incorporated into the recommendations of this Lodging Wellness Plan.

The character of Fort Buchanan has been preserved and enhanced through the use of medium to high sloped tile roofs, and light toned natural stucco. Large exterior door and window openings and recessed alcoves and covered walkways exemplify the local Caribbean architecture. The new Army Reserve Center and new El Caney Lodging facility represent the desired architecture guidance of the post.

### Master Plan Summary

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The main Lodging campus area at Fort Buchanan was constructed in 1999 and is comprised of four buildings, 678, 679, 680, and 681. Buildings 801 and 802 are single family homes constructed in 1965 and converted to DVQ facilities. A thorough condition and functional assessment of the existing main Lodging campus buildings noted no significant deficiencies. The existing DVQ facilities have significant functional deficiencies. Renovation of the DVQ facilities to new Lodging standards and building configuration is not viable within the 50% threshold.

The new Lodging campus is located in the center of the installation, in close proximity to the majority of the community facilities. This main Lodging campus area is recommended for new family suite Lodging construction.

The proposed Fort Buchanan Lodging Master Plan reflects 82 Lodging rooms with the replacement of two of the existing Lodging buildings in a new Lodging facility. The number of rooms for the proposed Lodging facility reflects the proposed layout based on the demand requirement of family suites, but does not match the exact demand numbers because of the existing building configuration. The new facility, in conjunction with the existing main Lodging facilities 678, 679, 680, and 681 will combine the required rooms, public areas and service functions into a cohesive Lodging physical plant in support of the installation requirements.

Siting of the new 12 family suite Lodging facility is recommended between to existing buildings 678 and 681 within the new Lodging campus area, at the corner of Depot Road and South Terminal Road, across from the NCO/Officer's Club. Specific attention to siting of this proposed facility includes new force protection setback criteria from existing and proposed roads, parking, and adjacent facilities.

## Existing Lodging Summary

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### ***Building 678***

Building 678, constructed in 1999, is a two story stucco and masonry building housing 20 standard rooms, 20 extended stay rooms and 4 family suites. This building is the main Lodging facility within the new Lodging campus area (buildings 678-681). This building is in good condition, although many of the rooms do not meet the Lodging size requirements. These room sizes are larger than standards but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria, although some spaces are missing. Recommended renovations will eliminate 5 guest rooms to add support space requirements. The cost to make condition assessment improvements and modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 678 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.

## Areas and Occupancy

The following chart indicates all spaces and size based on the Army Lodging standard program for the existing building and the Wellness recommended renovations. A synopsis of the changes are:

- Renovate 5 guest rooms into support spaces for main Lodging.
- Add Breakfast Area off of lobby at existing conference room location.
- Add administrative spaces.

ROOM / SPACE	PROGRAMMED FLOOR AREA			EXISTING AREAS	RENOVATION PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area		
<b>Total Area including 9% Add On Factor</b> (does not include Outside Areas)*			<b>23,027</b>		
<b>Public Areas</b>			<b>2,480</b>		<b>2,441</b>
Exterior Entrance	N/A	N/A			-
Vestibule	1	150	-		-
Lobby (includes vestibule)	1	500-800	500-800	638	800
Front Desk	2 stations	100	100	172	297
Bell Cart Station	3	12	36	-	36
Breakfast Bar (Seat/Svc) - min.	1	550	550	-	370
Passenger Elevators		64	-	*	*
Stairs		230	-	*	*
Public Corridors	-	-	-	*	*
Public Telephone Area	2	6	12	-	12
Vending - Full Service	1	70	70	342	138
Vending - Ice Only	1	30	30	30	138
Women - Lobby	1	200	200	50	50
Men - Lobby	1	200	200	50	50
Multi-Purpose Room - (250 s.f. min.)	1	250	250	360	305
Study Rooms (1 per 25 ext stay units)	-	250	-	-	-
Guest Laundries (2 sets w/d per 75 units)	1	192	192	176	192
Gear Wash Rooms - (170 s.f. min.)	-	170	-	-	-
Guest Bulk Storage (1 per 4 family suites)	1	25 ea. 40 w/circ.	40	-	53
<b>Guest Rooms</b>			<b>13,800</b>		<b>13,800</b>
Guest Room - Standard	20	300	6,000		6,000
Guest Room - Ext. Stay	20	300	6,000		6,000
Guest Room - Family Suites	4	450	1,800		1,800
<b>Back-of-House Areas</b>			<b>4,846</b>		<b>3,706</b>
Manager's Office	1	180	180	131	150
Assistant Manager Offices	-	-	-	-	-
Front Office Manager	1	100	100	102	101
Admin. Offices	2 staff	200-250	200-250	131	210
Cash Room	1	75	75	-	75
Luggage Storage	1	75	75	-	50
Admin. Conference Room	1	250	250	-	192
Housekeeping Office	1	120	120	134	134
Dirty/Clean Linen Storage	-	50	-	-	-
In-House Laundry - (500 s.f. minimum)	1	500	500	416	416
Receiving Office	1	75	75	-	176
Maintenance Area	1	175	175	-	150
Kitchen Prep Room	1	150	150	-	132
Break Room	1	210	210	279	279
Staff Toilet - Men	1	100	100	166	166
Staff Toilet - Women	1	100	100	184	149
Access Corridor	-	-	-	*	*
Receiving -min.	1	150	150	150	150
Housekeeping Rooms	1 per 15 units	128	384	365	365
Service Elevator	-	80	-	*	*
Data/Commo Room	1	100	100	*	*
Switch Closets	1	16	16	*	*
Janitor Closet	1	50	50	-	50
Mechanical Room	-	-	422	*	*
General Storage Room - (500 s.f. min.)	1	500	500	113	401
Bulk Storage Room - (500 s.f. min.)	1	500	500	304	360
Electrical Room	2	140	280	*	*
Elevator Equipment Room	1	84	84	*	*
<b>Exterior</b>			<b>400</b>		
Playground (Outdoor)	1	-	-		-
Grounds Maintenance	1	400	400		-

\* Square footage part of building infrastructure and is not calculated



### ***Building 679***

Building 679, constructed in 1999, is a one story stucco and masonry building housing 4 standard rooms, 5 extended stay rooms, and 1 family suite. This building is one of the satellite buildings within the main Lodging campus area (buildings 678-681). This building is in good condition, although rooms do not meet the Lodging size requirements. Many of the room sizes are larger than standards, but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria. The cost to make condition assessment improvements and minor modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 679 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.



### ***Building 680***

Building 680, constructed in 1999, is a one story stucco and masonry building housing 5 standard rooms, 5 extended stay rooms, and 1 family suite. This building is one of the satellite buildings within the main Lodging campus area (buildings 678-681). This building is in good condition, although ,rooms do not meet the Lodging size requirements. Many of the room sizes are larger than standards, but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria. The cost to make condition assessment improvements and minor modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 680 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.



### ***Building 681***

Building 681, constructed in 1999, is a one story stucco and masonry building housing 4 standard rooms, 5 extended stay rooms, and 1 family suite. This building is one of the satellite buildings within the main Lodging campus area (buildings 678-681). This building is in good condition, although rooms do not meet the Lodging size requirements. Many of the room sizes are larger than standards, but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria. The cost to make condition assessment improvements and minor modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 681 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.



### ***Building 801***

Building 801, constructed in 1965, is a single story facility housing 2 extended stay rooms with a shared kitchen, dining, and living space. Originally constructed as a DVQ facility, this building is in poor condition, and does not meet the Lodging size requirements or provide appropriate support spaces. The cost to make condition assessment improvements to this facility will exceed 50% of the replacement cost.

Our recommendation is to remove building 801 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Buchanan Wellness Solution and Lodging Master Plan.



### ***Building 802***

Building 802, constructed in 1965, is a single story facility housing 2 extended stay rooms with a shared kitchen, dining, and living space. Originally constructed as a DVQ facility, this building is in poor condition, and does not meet the Lodging size requirements or provide appropriate support spaces. The cost to make condition assessment improvements to this facility will exceed 50% of the replacement cost.

Our recommendation is to remove building 802 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Buchanan Wellness Solution and Lodging Master Plan.

## New Lodging Building

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The proposed replacement/new Lodging facility includes 12 family suites.

The proposed new construction will be sited on the existing main Lodging facility campus at the corner of Depot Road and South Terminal Road, between buildings 678 and 681. The proposed building construction is concrete masonry, sloped standing seam metal roof, and a stucco exterior veneer, to match the existing Lodging buildings. The architectural guidance for Fort Buchanan Lodging facilities is very specific and is incorporated into the cost of the new facility.

The mass and scale of the proposed building is critical. The new facility will maintain a two story height to maintain compatibility with the adjacent main Lodging building.

## Areas and Occupancy

The following chart indicates all spaces and size for the proposed new construction based on program and the proposed conceptual building plan.

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
<b>Total Area including 9% Add On Factor (does not include Outside Areas)*</b>			<b>11244</b>	<b>11285</b>
<b>Public Areas</b>			<b>3736</b>	<b>3502</b>
Exterior Entrance	N/A	N/A		0
Vestibule	1	100	0	167
Lobby (includes vestibule)	0	300-500	0	0
Front Desk	2 stations	100	0	0
Bell Cart Station	2	12	24	36
Breakfast Bar (Seat/Svc) - min.	0	550	0	0
Passenger Elevators	1	64	128	132
Stairs	1	230	460	394
Public Corridors	0	0	2200	2243
Public Telephone Area	2	6	12	28
Vending - Full Service	1	70	70	86
Vending - Ice Only	1	30	30	30
Women - Lobby	0	100	0	0
Men - Lobby	0	100	0	0
Multi-Purpose Room - (250 s.f. min.)	0	250	0	0
Study Rooms (1 per 25 ext stay units)	0	250	0	0
Guest Laundries (2 sets w/d per 75 units)	1	192	192	195
Gear Wash Rooms - (170 s.f. min.)	0	170	0	0
Guest Bulk Storage (1 per 4 family suites)	3	25 ea. 40 w/circ.	120	191
<b>Guest Rooms</b>			<b>5400</b>	<b>5400</b>
Guest Room - Standard		300	0	0
Guest Room - Ext. Stay		300	0	0
Guest Room - Family Suites	12	450	5400	5400
<b>Back-of-House Areas</b>			<b>1180</b>	<b>1189</b>
Manager's Office	0	180	0	0
Assistant Manager Offices	0	0	0	0
Front Office Manager	0	100	0	0
Admin. Offices	2 staff	200-250	0	0
Cash Room	0	50	0	0
Luggage Storage	0	0	0	0
Admin. Conference Room	0	250	0	0
Housekeeping Office	0	120	0	0
Dirty/Clean Linen Storage	1	50	50	73
In-House Laundry - (500 s.f. minimum)	0	500	0	0
Receiving Office	0	75	0	0
Maintenance Area	0	100	0	0
Kitchen Prep Room	0	150	0	0
Break Room	1	140	140	136
Staff Toilet - Unisex	1	100	100	100
Access Corridor	0	0	100	96
Receiving -min.	0	150	0	0
Housekeeping Rooms	1 per 15 units	128	128	191
Service Elevator	0	100	0	0
Data/Commo Room	1	100	100	138
Switch Closets	1	16	16	53
Janitor Closet	0	50	0	0
Mechanical Room	0	0	72	162
General Storage Room - (500 s.f. min.)	0	500	0	0
Bulk Storage Room - (500 s.f. min.)	0	500	0	0
Electrical Room	1	140	140	142
Elevator Equipment Room	1	84	84	98
<b>Exterior</b>			<b>400</b>	
Playground (Outdoor)	1	0	0	0
Grounds Maintenance	1	400	400	0
* Add on factor to cover s.f. for partitions and any space not included in numbers above.				

## Cost Summary

The New Construction Cost: \$2,463,797

- The cost is for a building of 12 rooms.
- All costs are adjusted by the Area Cost Factor of 136% for Fort Buchanan, Puerto Rico.

## Cost Analysis

### Summary of Project Replacement Cost (based on 11,285 s.f.)

CSI	Percent	Amount
<b>02 Site Work</b>	<b>3.99%</b>	<b>\$66,412.03</b>
Parking Lots		\$14,470.40
Site Earthwork		\$51,941.63
<b>03 Concrete</b>	<b>17.81%</b>	<b>\$296,323.42</b>
Floor Construction		\$171,135.42
Slab on Grade		\$38,399.60
Stair Construction		\$9,996.00
Standard Foundations		\$76,792.40
<b>04 Masonry</b>	<b>7.03%</b>	<b>\$117,016.05</b>
Exterior Walls		\$117,016.05
<b>07 Thermal &amp; Moisture Protection</b>	<b>8.14%</b>	<b>\$135,519.97</b>
Roof Construction		\$40,504.56
Roof Coverings		\$95,015.41
<b>08 Doors &amp; Windows</b>	<b>7.69%</b>	<b>\$127,990.96</b>
Exterior Doors		\$13,362.00
Exterior Windows		\$87,040.00
Interior Doors		\$27,588.96
<b>09 Finishes</b>	<b>12.62%</b>	<b>\$209,970.78</b>
Ceiling Finishes		\$34,651.11
Floor Finishes		\$58,937.79
Partitions		\$63,590.21
Wall Finishes		\$52,791.66
<b>11 Equipment</b>	<b>3.43%</b>	<b>\$57,120.00</b>
Other Equipment		\$57,120.00
<b>13 Special Construction</b>	<b>5.56%</b>	<b>\$92,458.05</b>
Communications & Security		\$41,621.48
Sprinklers		\$50,836.57

<b>14 Conveying Systems</b>	<b>8.78%</b>	<b>\$146,064.00</b>
Elevators and Lifts		\$146,064.00
<b>15 Mechanical</b>	<b>13.00%</b>	<b>\$216,347.44</b>
Cooling Generating Systems		\$122,867.84
Domestic Water Dist		\$44,064.00
Plumbing Fixtures		\$49,415.60
<b>16 Electrical</b>	<b>8.35%</b>	<b>\$138,931.48</b>
Electrical Service & Distribution		\$135,946.28
Site Lighting		\$2,985.20
<b>19 FF&amp;E</b>	<b>3.61%</b>	<b>\$60,000.00</b>
Interior FF&E allowance		\$60,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,664,154.18</b>

**Additional Hard Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$9,152.85
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$166,415.42
<b>Total Additional Hard Cost</b>		<b>\$175,568.27</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$91,986.12
SIOH Conus	6.50%	\$125,561.06
Design	10.00%	\$183,972.25
08 MYr Inflation Fct	9.93%	\$222,555.32
<b>Total Soft Cost</b>		<b>\$624,074.74</b>
<b>Total Project Cost for Replacement</b>		<b>\$2,463,797.19</b>

**INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE**

**INSERT LODGING MASTER PLAN DRAWING HERE**

**INSERT PROPOSED LODGING FACILITY (FLOORS 1-2) HERE**

## Overview

### Section 3 Demand Analysis

Fort Buchanan supports U.S. Army reserve and active duty component soldiers in Puerto Rico and the U.S. Virgin Islands. Its principal mission is to plan, prepare, and execute mobilization for this region and to serve as a power support/power projection platform in the area. This installation also provides support to Army forces operating in the Caribbean region and develops and executes contingency plans as required. The 65<sup>th</sup> USA Reserve Command Antilles Consolidated School System is a major component on the installation.

The Fort Buchanan population varied considerably over the last five years, falling from 5,224 in FY99 to 4,587 in FY00 before increasing to 7,158 in FY01. Most recently, population decreased to 5,728 and 5,392 in FY02 and FY03, respectively. The installation expects the population to decline to 4,614 by FY04 and reach a stabilized level of 4,779 by FY06. The decline in projected population is in response to the U.S. Army South (USARSO) Headquarters having vacated the installation in FY03.

In FY03, Fort Buchanan's lodging demand comprised 49% Temporary Duty (TDY) personnel, 29% Permanent Change of Station (PCS) personnel, and 22% unofficial travelers. Unofficial demand is not used in the calculation of recommended room inventory. The majority of TDY personnel attended classes and training activities typically lasting 9 to 10 days. The majority of PCS stays ranged from 55 to 60 days.

The table below describes Fort Buchanan's official demand population.

<b>Fort Buchanan</b>		
<i>Official Market Demand Analysis</i>		
	<b>TDY</b>	<b>PCS</b>
<b>Total Demand:</b>	49%	29%
<b>Market Segmentation:</b>		
Individuals	60%	< 15%
Families	40%	> 85%
<b>Average Length of Stay (Days):</b>		
14 days or less	60% (9-10 days)	5% (7-8 days)
More than 14 days	40% (25-30 days)	95% (55-60 days)

*Source: Fort Buchanan Lodging Administration, compiled by HVS International*

## On Post Inventory

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Fort Buchanan has 79 rooms in its lodging inventory.

## Demand and Utilization

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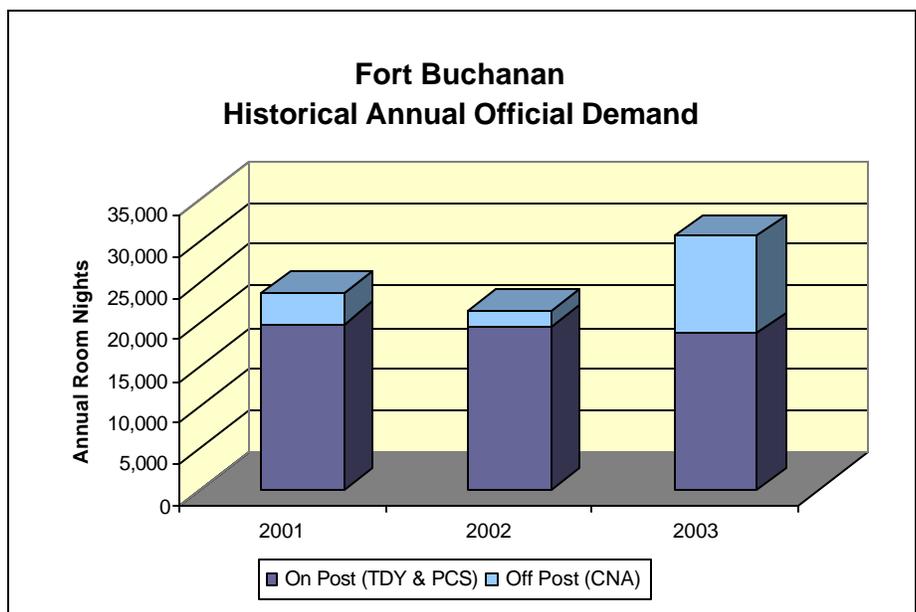
### **Data Summary**

Official demand, including Certificates of Non-Availability (CNAs), totaled 30,626 room nights in FY03, up from 21,540 room nights in FY02. In FY03, total official demand averaged 83.9 room nights per day.

TDY demand increased from 10,661 in FY02 to 11,804 in FY03. Conversely, PCS demand declined from 8,994 room nights in FY02 to 6,962 room nights in FY03. This shift in PCS demand—due to the USARSO Headquarters' move and a resulting shift from active duty to reserve support—suggests FY03 data to be the best reflection of future demand mix. For this reason, we used FY03 data as the basis for our room mix recommendation rather than the typical three-year average.

There were 3,712 CNAs reported for FY01. In FY02 and FY03, there were 1,885 and 11,860 reported CNAs, respectively. The heightened CNA activity began in January 2003 and continued through the end of the fiscal year.

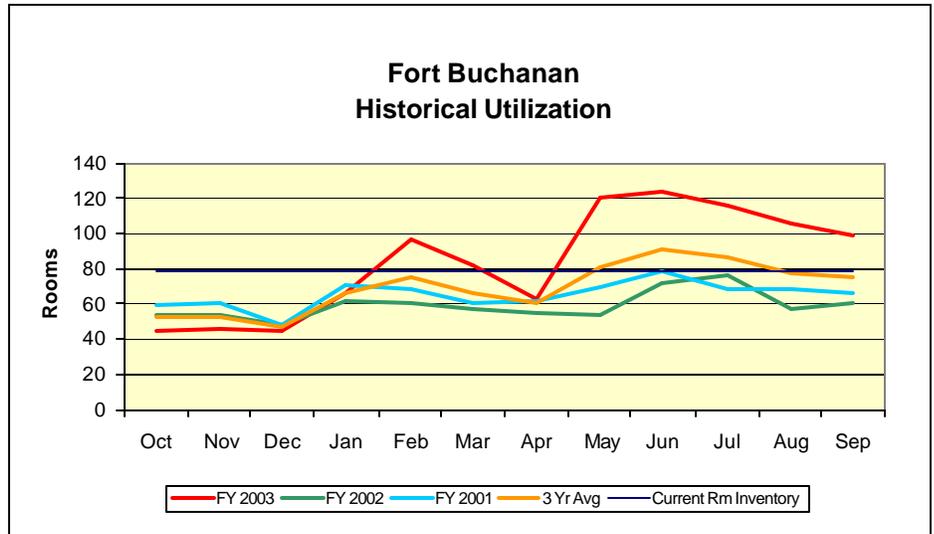
The following chart summarizes Fort Buchanan's historical data; it identifies the annual official demand both on and off post.



Source: Fort Buchanan Lodging Administration, compiled by HVS International

Lodging occupancy at Fort Buchanan declined from 83.7% in FY01 to 82.3% in FY02. In FY03, occupancy increased to near the FY01 level, at 83.8%. The increase in FY03 occupancy is attributed to an increase in TDY activity at the installation.

The following chart summarizes Fort Buchanan's historical utilization data by month.



Source: Fort Buchanan Lodging Administration, compiled by HVS International

When compared to the previous two years, monthly variances between years show higher overall demand during much of FY03. However, overall trends by month have been consistent.

### **Seasonality**

The records indicate moderate seasonality to Fort Buchanan lodging demand; summer months note increases in demand due to an influx of soldiers being newly assigned during the months of May, June, and July. In addition, Lodging management reports increased unofficial demand during this time.

### **Factors Influencing Demand**

As noted previously, this installation experienced a change of mission which prompted a new lodging demand trend in FY03. Lodging management does not expect any additional changes in mission, schedule or other factors that would have significant influence on lodging demand patterns.

## Private Market Capability

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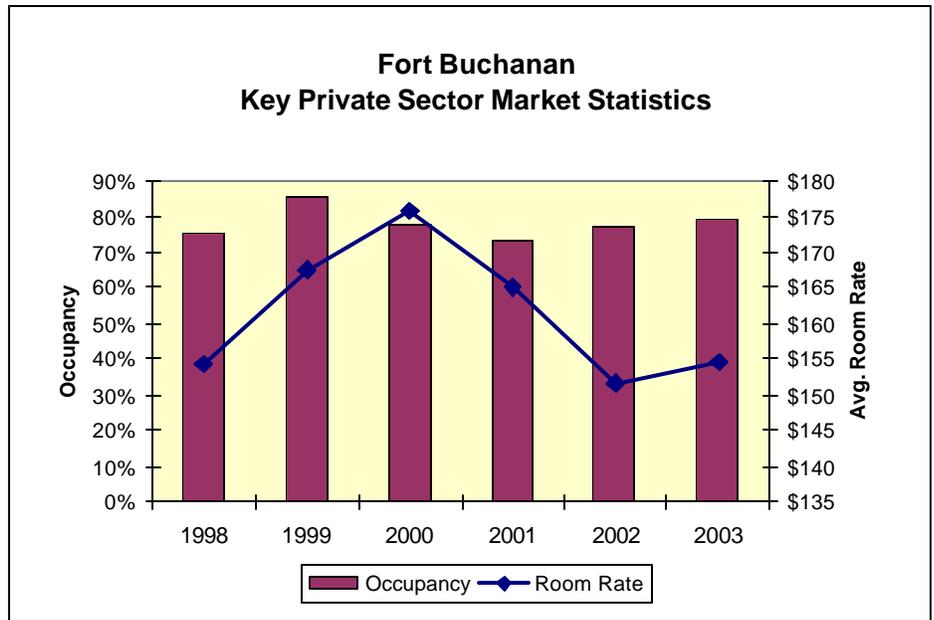
Fort Buchanan is in proximity to 20 area hotels inclusive of 5,254 rooms within a 30-minute rush-hour driving time radius of the installation. These hotels are within the San Juan market and range in size from 50 rooms to 645 rooms. The private market hotels represent a wide range of facilities affiliated with recognizable brand names; examples include Radisson, Holiday Inn Express, and Best Western.

Area occupancy levels in the private market are very high, moderating slightly from 85.4% in calendar year 1999 to just below 80.0% in 2003. While this pattern created some capacity within the private market, the market is normally sold-out during many times of the year, particularly during the summer and January through March vacation seasons. The high occupancy levels reflect this private market strength.

The strong demand characteristics are also reflected in the private market's room rates, which are very high. The room rates quoted by the hotels on the installation's referral list ranged from \$95 to \$180 for government travelers. The rounded, weighted average rate offered by these hotels to government travelers was \$140; this is considered to be the current actual government rate paid despite a higher per diem of \$175.

Because of the readily available rooms at this lower rate, our quantitative analysis uses a room rate of \$140 for FY02 and FY03. In FY01, when private market room rates were considerably higher, the per diem rate of \$175 was similar to the actual rate paid. The currently lower rate position is also supported by the Smith Travel Research market data, which indicated a market-wide average rate just below \$155.

The chart below describes key private market statistics.



Source: Smith Travel Research

## Demand Requirement Determination

Complete data pertaining to the last three years was available for Fort Buchanan; therefore, we used this time frame as a basis for demand projections. We received no historical lodging data for FY99 and FY00.

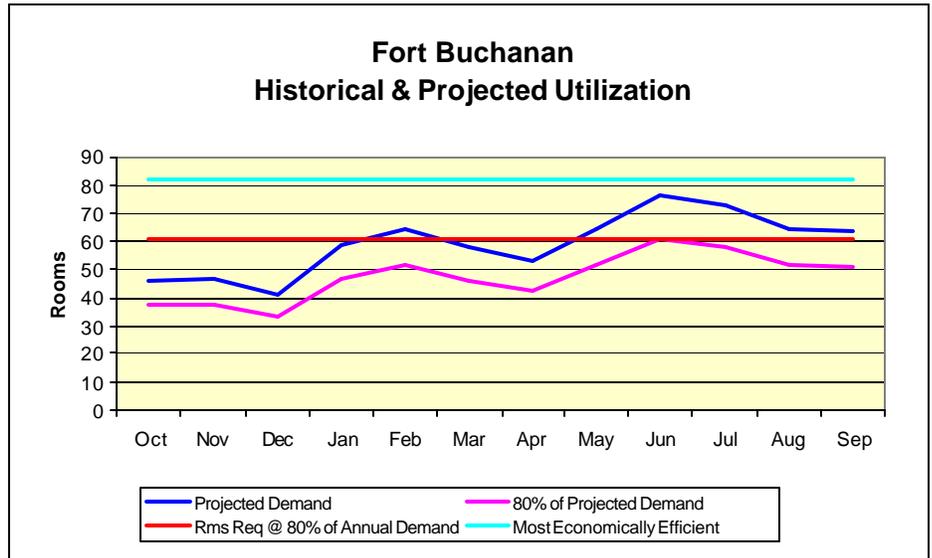
The normalization process eliminated monthly demand variances 20% greater or 20% less than average demand for FY00 through FY03. Variances greater or less than 20% of the average are atypical and unlikely to recur. For Fort Buchanan, normalization resulted in increases of demand in FY01 and FY02 by approximately 21 and 367 room nights, respectively, and a decrease of demand in FY03 by 3,313 room nights.

The Core Lodging Requirement objective is to provide sufficient lodging to meet 80% of the official demand. Using this criterion, the total number of rooms required on an annualized basis is 61, generating occupancy of 90%. As implied by the criterion, at least 80% of the official demand is met each month. On an annual basis, 92% of the official demand is met.

Another method to determine the number of rooms to be provided at the installation applies the "Most Economically Efficient" criterion. This measure compares the cost of having a vacant room to the incremental cost of lodging personnel off post. When the costs of these scenarios are at equilibrium, the most cost efficient number of rooms will be provided from an operating cost perspective. The number of rooms required to

achieve this equilibrium for Fort Buchanan is 82 rooms. With a room inventory of 82 rooms, the expected occupancy is 72% and all of the forecast official demand is met.

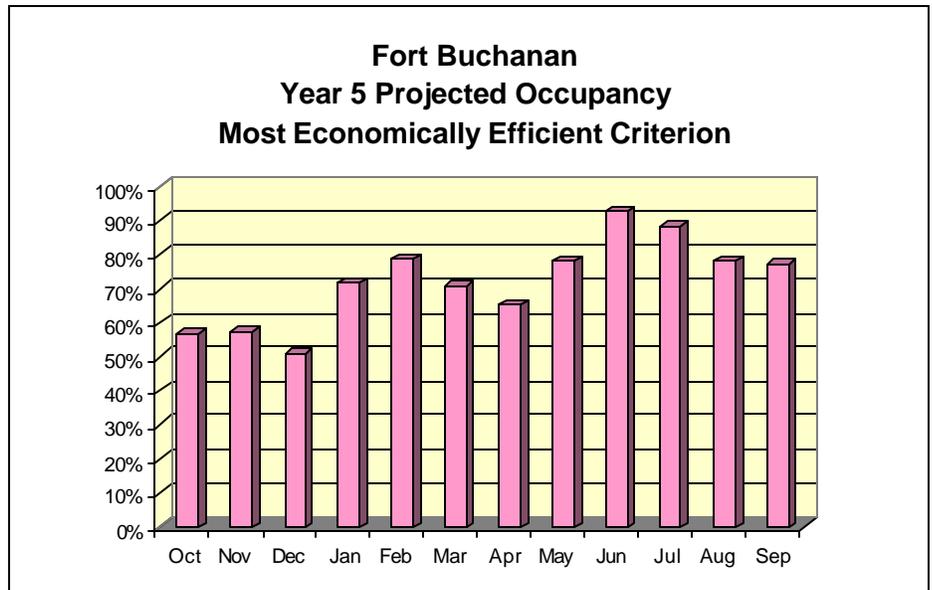
The following chart compares the alternatives of room inventory to projected demand.



Source: Fort Buchanan Lodging Administration and HVS International

Due to the near-capacity situation of the private market and the typically very high room rates demanded by these hotels, we recommend the number of rooms provided by the “Most Economically Efficient” criterion, or 82 units. Fort Buchanan’s projected FY09 Average Daily Rate is \$65.16, based on projected operating costs and exclusive of Wellness recommended capital improvement costs.

The chart below presents the expected occupancy percentage on a monthly basis.



Source: HVS International

Using the “Most Economically Efficient” criterion, the average occupancy is 72% and 100% of the official demand is met. On a monthly basis, occupancy varies from a low of 51% in December to 93% in June.

## Summary and Recommendation

- Fort Buchanan’s population decreased to 5,392 personnel in FY03; the installation forecasts a further decrease to 4,800 personnel by FY06
- Due to the recent change in mission, the FY03 demand data was used to determine the future room mix for this installation
- The local private sector lodging market sells out often throughout the year and reported room rates within the private market are very high; utilizing private sector lodging is very expensive in Puerto Rico
- Official demand showed slight declines over the last three years but is expected to remain stable
- The installation recorded a total of 3,712 and 1,865 CNAs for FY01 and FY02, respectively; a total of 11,860 CNAs were recorded in FY03
- Providing a room inventory equal to the results of the “Most Economically Efficient” criterion will generate an annual occupancy rate of 72%.

***Room Count and Mix Recommendation***

- 82 rooms
- Proposed room mix:
  - 38 standard guest rooms
  - 25 extended-stay guest room offering a kitchenette
  - 19 extended-stay family suite offering a separate bedroom, sitting/living area, and kitchenette

# Section 4 Facility Assessment and Plans

Each Lodging facility is detailed in this section of the report. The outline of the detail is described below:

- **Summary of Existing Lodging Facility**
- **Significant Assumptions**, identifies criteria used for renovation / replacement cost models.
- **Cost Analysis**, summarizes recommendation based on cost.
- **Attributes**, describes number of rooms and configuration.
- **Condition Analysis and Recommendations** for each of the major systems of the building.
- **Major Functional Criteria Deficit**, describes any major Functional inadequacy based on Army standards.
- **Condition Assessment / Renovation / Replacement Analysis**
  - **Condition Assessment**, summarizes building system deficiencies grouped by CSI with additional hard cost and soft cost.
  - **Renovation**, summarizes building system costs plus functional renovation costs grouped by CSI with additional hard cost and soft cost.
  - **Replacement**, summarizes replacement cost grouped by CSI with additional hard cost and soft cost.



*Bldg 678  
Main Lodging Facility  
Ft. Buchanan, PR*

## **Building 678**

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Building 678, constructed in 1999, is a two story stucco and masonry building housing 20 standard rooms, 20 extended stay rooms and 4 family suites. This building is the main Lodging facility within the new Lodging campus area (buildings 678-681). This building is in good condition, although many of the rooms do not meet the Lodging size requirements. These room sizes are larger than standards but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria, although some spaces are missing. Recommended renovations will eliminate 5 guest rooms to add support space requirements. The cost to make condition assessment improvements and modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 678 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.

### **Significant Assumptions**

- The replacement cost model is based on 16 standard stay rooms, 19 extended stay rooms and 4 family suites.
- The upgrade cost model uses the existing building foot print, with the plan reworked to meet current lodging size requirements.
- This building is in good condition for both the Condition Assessment and Function Criteria. In this building the Condition Assessment costs include the wellness items and the Upgrade Cost includes functional renovations but not Condition Assessment cost.
- The upgrade and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.
- All costs are adjusted by the Area Cost Factor of 136% for Fort Buchanan, Puerto Rico.

## Cost Analysis

• Condition Assessment & Upgrade Cost	\$1,252,383
• Replacement Cost	\$6,052,126
• Condition Assessment & Upgrade to Replacement Cost Ratio	20.69%

Because the Sum of the Condition Assessment and Upgrade Costs to Replacement Cost Ratio is less than 50.00%, repair, upgrade, and continued use of Building 678 is recommended.



Bldg 678  
Reception and Lobby  
Ft. Buchanan, PR

## Attributes

01.Number of Units Constructed	44
02.Number of Units Used	44
03.Main Lodging Facility	Yes
04.Single Room w/o FullKitchen	40
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	4
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	20
11.Operating as Extended Stay	20
12.Operating as Family Suite	4
13.Renovated to Standard	16
14.Renovated to Extended Stay	19
15.Renovated to Family Suite	4
16.Delta renovation	-5
17.Remove from Inventory	No
18.Upgrade Renv Cost Model Req	Yes
19.Renv Cost Model Req	No



Bldg 678  
Exterior Walkway  
Ft. Buchanan, PR

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture is five years old and is in good condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items are also five years old and are in good condition.

- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of continuous concrete spread footing on compacted soil. No signs of failure can be seen in the foundation and it is in good condition.

- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil is showing no signs of stress and is in good condition.

- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is slab on grade for the first floor and poured concrete on a steel deck supported by poured concrete columns for the second floor and is in good condition.

- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The roof structure is a fire-stop metal deck with metal joists and rafters supporting a standing seam metal roof and is in good condition.

- Recommendation: No corrective action required.

### Exterior Enclosure

#### Exterior Walls

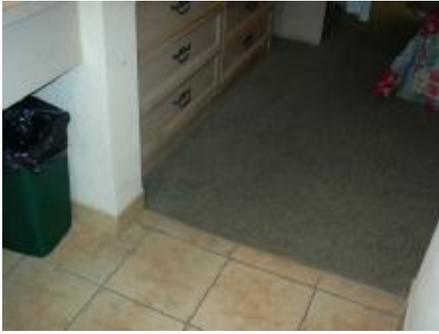
- Analysis: The exterior walls are stucco over concrete and are in good condition.

- Recommendation: No corrective action required.

#### Exterior Windows

- Analysis: The exterior windows are double pane, low E, sliding glass balcony doors in the guest rooms; double pane, low E storefront in the lobby; and double pane, low E single hung in the administrative and back-of-house spaces. All are in good condition.

- Recommendation: No corrective action required.



**Bldg 678**  
**Typical Entrance Tile and Carpet**  
**Ft. Buchanan, PR**

### **Exterior Doors**

- Analysis: The exterior doors are aluminum storefront in the lobby; commercial steel in steel frames in the guest room entry doors; and commercial steel in steel frames in the back-of-house spaces. The storefront is in good condition. All door closure hardware for the commercial steel door in the guest rooms and back-of-house spaces are failing and in poor condition.
- Recommendation: Replace all door closure hardware.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is a standing seam metal roof and is in good condition.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The partitions are drywall on metal studs and are in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The interior doors are fire rated, wooden doors in steel frames and are in good condition.
- Recommendation: No corrective action required.

### **Stairs**

#### **Stair Construction**

- Analysis: The original exterior access stairs are steel with concrete treads and are in good condition.
- Recommendation: No corrective action required.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are paint on drywall in the administration and back-of-house areas; paint on stucco in the guest rooms, lobby and common areas; and all are in poor condition.
- Recommendation: Install vinyl wall covering in the guest rooms, common areas, and lobby; and paint the back-of-house and administrative areas.

#### **Floor Finishes**

- Analysis: The floor finishes consist of carpet in the guest rooms and offices; ceramic tile in the bathrooms and common areas; stone flooring in the guest room kitchenette and lavatory area, lobby, reception and building entrance areas; vinyl tile in the common areas; and concrete in the back-of-house areas. The carpet, ceramic tile and vinyl flooring is in poor condition.
- Recommendation: Replace the carpet and vinyl tile.

### **Ceiling Finishes**

- Analysis: The ceilings are painted drywall and are in poor condition.
- Recommendation: Repaint the ceilings.

### **Conveying**

#### **Elevators and Lifts**

- Analysis: The building has an elevator that services the second floor and is in good condition.
- Recommendation: No corrective action required.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of floor mounted water closets, chrome plated brass faucets for the lavatory and bathtub, and chrome plated brass faucets for the stainless steel kitchen sink. All are in good condition.
- Recommendation: No corrective action required.

#### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through copper lines and are in good condition. The waste lines are PVC piping and are in good condition. Hot water is produced from a gas fired, on-demand boiler and distributed through insulated copper lines. The hot water generation and distribution system is in good condition.
- Recommendation: No corrective action required.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: Heating and cooling is supplied by the original PTAC units in the guest rooms, and a four pipe HVAC system with a compressor and boiler servicing the administrative, lobby and back-of-house areas. The PTAC units are failing and are in poor condition. The HVAC system is in good condition.
- Recommendation: Replace all PTAC units.

### **Fire Protection**

#### **Sprinklers**

- Analysis: The fire sprinkler system installed in this building is in good condition. The kitchenettes are missing fire suppression systems.
- Recommendation: Install fire suppression in the kitchenettes.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied from a pad mounted transformer supplying 120/208 volt, three phase power to the 2000 amp main switchboard. Distribution panels are located throughout the building and consist of original panels and branch wiring on each floor. These panels provided power to all lights and outlets in the building. The switchboard, panels, branch wiring, switches, outlets and fixtures are in good condition.
- Recommendation: No corrective action required.

### **Communications and Security**

- Analysis: The fire alarm system consists of smoke detectors in each room and horns and strobes in the rooms, walkways and common areas. The fire alarm system is in good condition.
- Recommendation: No corrective action required.

## **Equipment**

### **Commercial Equipment**

- Analysis: The commercial equipment consists of washers and dryers guest laundry, a commercial washer and dryer for the lodging laundry, and commercial ice makers. All are in good condition.
- Recommendation: No corrective action required.

### **Other Equipment**

- Analysis: There is a micro-fridge and microwave oven in each guest room and all are in good condition. There are no two burner stoves with exhaust hoods installed in any guest room in the facility.
- Recommendation: Install two burner stoves in extended stay and family suite guest rooms.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site consists of landscaped grassy areas framed by sidewalks, shrubs and trees and is in good condition.
- Recommendation: No corrective action required.

## **Site Improvements**

### **Parking Lots**

- Analysis: The asphalt parking lots are in good condition.
- Recommendation: No corrective action required.

## **Site Electrical Utilities**

### **Site Lighting**

- Analysis: The parking areas and walkways have pole mounted mercury vapor lights and bollard lights, and the building has mercury vapor wall packs. Site lighting is in good condition.
- Recommendation: No corrective action required.



Bldg 678  
Back-of-House  
Ft. Buchanan, PR

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Accessible Staff Toilets**  
Exceeds s.f. requirements.  
Renovation will reduce s.f. as part of the Wellness Recommendation.
- **Administration Conference Room**  
Space is shared as a Multi-Purpose room.  
Renovation will include designated Administration Conference Room as part of the Wellness Recommendation.
- **Administration Offices**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Break Room**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Bulk Storage Area**  
Undersized based on Functional Criteria.  
Renovation will relocate space as part of the Wellness Recommendation.
- **Cash Room**  
Does not exist, is required based on Functional Criteria.  
Renovation will include function as part of the Wellness Recommendation.
- **Front Office Manager**  
Meets majority of Functional Criteria.  
Renovation not required.
- **General Storage Area**  
Area is colocated with in-house laundry.  
Renovation will relocate space as part of the Wellness Recommendation.
- **Housekeeping Office**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Housekeeping Rooms**  
Meets majority of Functional Criteria.  
Renovation not required.
- **In-House Laundry Area**  
Slightly undersized and includes General Storage space.  
Renovation will relocate General Storage as part of the Wellness Recommendation.

- **Janitor Closet**  
Does not exist, is required based on Functional Criteria. Renovation will include function as part of the Wellness Recommendation.
- **Kitchen Preparation Area**  
Does not exist, is required based on Functional Criteria. Renovation will include function as part of the Wellness Recommendation.
- **Luggage Storage**  
Does not exist, is required based on Functional Criteria. Renovation will include function as part of the Wellness Recommendation.
- **Maintenance Area**  
Does not exist, is required based on Functional Criteria. Renovation will include function as part of the Wellness Recommendation.
- **Manager's Office**  
Meets majority of Functional Criteria. Renovation not required.
- **Receiving**  
Area is colocated with storage. Renovation will relocated space as part of the Wellness Recommendation.
- **Receiving Office**  
Does not exist, is required based on Functional Criteria. Renovation will include function as part of Wellness Recommendation.
- **Service Corridors**  
Does not exist, is required based on Functional Criteria. Renovation will create an exterior service corridor as part of Wellness Recommendation.
- **Utility Rooms (Mech/Elec/Data/Comm/Switch/Elevator Equipment Rooms)**  
Meets majority of Functional Criteria. Renovation not required.

#### **Guest Rooms**

- **Extended Stay Rooms**  
Rooms are oversized at approximately 400 s.f., but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners. Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.
- **Family Suites**  
Rooms are oversized at over 700 s.f. but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners. Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.

- **Standard Stay Rooms**  
Meets majority of functional criteria.  
Renovation not required.

#### **Public Spaces**

- **Accessible Public Toilets**  
Undersized.  
Renovation not recommended due to lobby configuration.
- **Bell Cart Station**  
Does not exist, is required based on Functional Criteria.  
Renovation will include function as part of the Wellness Recommendation.
- **Breakfast Bar**  
Does not exist, is required based on Functional Criteria.  
Renovation will include function as part of the Wellness Recommendation.
- **Front Desk**  
Meets majority of Functional Criteria.  
Renovation not required
- **Guest Bulk Storage**  
Does not exist, is required based on Functional Criteria.  
Renovation will include function as part of the Wellness Recommendation.
- **Guest Laundry Area**  
Meets majority of Functional Criteria.  
Renovation moves space to accommodate another function.
- **Lobby**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Multi Purpose Area**  
Space is colocated with Administration Conference Room.  
Renovation will include function as part of the Wellness Recommendation.
- **Passenger Elevators**  
Exist, is not required based on Functional Criteria.  
Renovation not required.
- **Public Corridors**  
Corridors are exterior.  
Renovation not viable based on building configuration.
- **Public Telephone Area**  
Does not exist, is required based on Functional Criteria.  
Renovation will include function as part of the Wellness Recommendation.
- **Stairs**  
Meets majority of Functional Criteria.  
Renovation not required.

- **Vending**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Vestibule**  
Does not exist, is required based on Functional Criteria.  
Renovation will not include function based on building configuration.

#### **Site**

- **Community Planning**  
The existing Lodging building is located within a well defined campus area and close to community facilities. The architecture of the Lodging campus is compatible with local installation architectural guidance. Exterior building architecture and material selections blend with the surrounding community and facilities and is context with regional influences.
- **Force Protection**  
The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.
- **Site Amenities**  
The existing Lodging facility is part of an existing cohesive Lodging campus, and includes most required site amenities. There is a well equipped playground and the landscape is exceptionally well maintained.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>2.41%</b>	<b>\$14,165.76</b>
Closer - Damaged or Failing		\$14,165.76
<b>09 Finishes</b>	<b>68.33%</b>	<b>\$402,281.39</b>
Carpet: Beyond Useful Life		\$48,222.04
Interior ceilings: Paint Failing		\$19,453.39
Interior walls: Paint failing		\$2,477.80
VCT: Beyond Useful Life		\$7,311.53
Vinyl walcovering, missing or inadequate		\$324,816.63
<b>11 Equipment</b>	<b>4.44%</b>	<b>\$26,144.64</b>
Stove: Missing or inadequate		\$26,144.64
<b>13 Special Construction</b>	<b>2.77%</b>	<b>\$16,320.00</b>
CO2 System: Missing or Inadequate		\$16,320.00
<b>15 Mechanical</b>	<b>22.05%</b>	<b>\$129,798.85</b>
Kitchen exhaust: Damaged or failing		\$32,269.44
PTAC: Damaged or failing		\$97,529.41
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$588,710.64</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,237.91
Force Protection	9.00%	\$58,573.77
General Conditions	10.00%	\$58,871.06
<b>Total Additional Hard Cost</b>		<b>\$120,682.74</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$70,939.34
SIOH Conus	6.50%	\$50,721.63
Design	10.00%	\$70,939.34
08 MYr Inflation Fct	9.93%	\$89,567.97
<b>Total Soft Cost</b>		<b>\$282,168.27</b>
<b>Total Project</b>		<b>\$991,561.65</b>

## Upgrade Renovation

The Upgrade Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Due to the limited nature of this cost model, the Condition Assessment Costs are not included.

### Summary of Project Upgrade Renovation Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>5.82%</b>	<b>\$9,008.64</b>
Interior Doors		\$9,008.64
<b>09 Finishes</b>	<b>66.47%</b>	<b>\$102,925.43</b>
Ceiling Finishes		\$13,040.29
Floor Finishes		\$13,246.40
Partitions		\$64,548.00
Wall Finishes		\$12,090.73
<b>13 Special Construction</b>	<b>9.38%</b>	<b>\$14,524.12</b>
Communications & Security		\$6,325.02
Sprinklers		\$8,199.10
<b>15 Mechanical</b>	<b>15.72%</b>	<b>\$24,347.40</b>
Cooling Generating Systems		\$21,083.40
Plumbing Fixtures		\$3,264.00
<b>16 Electrical</b>	<b>2.61%</b>	<b>\$4,049.40</b>
Electrical Service & Distribution		\$4,049.40
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$154,854.99</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$851.70
Force Protection	9.00%	\$15,407.30
General Conditions	10.00%	\$15,485.50
<b>Total Additional Hard Cost</b>		<b>\$31,744.50</b>

### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$18,659.95
SIOH Conus	6.50%	\$13,341.86
Design	10.00%	\$18,659.95
08 MYr Inflation Fct	9.93%	\$23,560.04
<b>Total Soft Cost</b>		<b>\$74,221.80</b>
<b>Total Project Cost for Upgrade Renovation</b>		<b>\$260,821.29</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>3.92%</b>	<b>\$160,265.46</b>
Parking Lots		\$44,444.80
Site Earthwork		\$115,820.66
<b>03 Concrete</b>	<b>15.84%</b>	<b>\$647,548.90</b>
Floor Construction		\$380,410.90
Slab on Grade		\$85,714.00
Stair Construction		\$9,996.00
Standard Foundations		\$171,428.00
<b>04 Masonry</b>	<b>5.32%</b>	<b>\$217,520.63</b>
Exterior Walls		\$217,520.63
<b>07 Thermal &amp; Moisture Protection</b>	<b>7.51%</b>	<b>\$307,029.31</b>
Roof Construction		\$96,118.17
Roof Coverings		\$210,911.14
<b>08 Doors &amp; Windows</b>	<b>8.30%</b>	<b>\$339,321.36</b>
Exterior Doors		\$19,272.56
Exterior Windows		\$266,560.00
Interior Doors		\$53,488.80
<b>09 Finishes</b>	<b>21.79%</b>	<b>\$890,563.77</b>
Ceiling Finishes		\$308,864.70
Floor Finishes		\$304,155.92
Partitions		\$162,698.71
Wall Finishes		\$114,844.44
<b>11 Equipment</b>	<b>3.24%</b>	<b>\$132,646.92</b>
Commercial Equipment		\$20,570.00
Other Equipment		\$112,076.92
<b>13 Special Construction</b>	<b>5.05%</b>	<b>\$206,399.31</b>
Communications & Security		\$92,913.98
Sprinklers		\$113,485.34
<b>14 Conveying Systems</b>	<b>3.57%</b>	<b>\$146,064.00</b>
Elevators and Lifts		\$146,064.00
<b>15 Mechanical</b>	<b>13.28%</b>	<b>\$542,993.60</b>
Cooling Generating Systems		\$274,284.80
Domestic Water Dist		\$105,264.00
Plumbing Fixtures		\$163,444.80
<b>16 Electrical</b>	<b>7.40%</b>	<b>\$302,511.60</b>
Electrical Service & Distribution		\$299,526.40
Site Lighting		\$2,985.20
<b>19 FF&amp;E</b>	<b>4.77%</b>	<b>\$195,000.00</b>
Interior FF&E allowance		\$195,000.00
Total Raw Cost	100.00%	\$4,087,864.87

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
----------------	---------	--------

Spirit	0.50%	\$22,483.26
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$408,786.49
<b>Total Additional Hard Cost</b>		<b>\$431,269.74</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$225,956.73
SIOH Conus	6.50%	\$308,430.94
Design	10.00%	\$451,913.46
08 MYr Inflation Fct	9.93%	\$546,689.77
<b>Total Soft Cost</b>		<b>\$1,532,990.90</b>
<b>Total Project Cost for Replacement</b>		<b>\$6,052,125.51</b>

**INSERT BUILDING 678 FLOOR PLANS HERE  
(EXISTING AND RENOVATION PLANS)**



*Bldg 679  
Front View  
Ft. Buchanan, PR*

## **Building 679**

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Building 679, constructed in 1999, is a one story stucco and masonry building housing 4 standard rooms, 5 extended stay rooms, and 1 family suite. This building is one of the satellite buildings within the main Lodging campus area (buildings 678-681). This building is in good condition, although rooms do not meet the Lodging size requirements. Many of the room sizes are larger than standards, but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria. The cost to make condition assessment improvements and minor modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 679 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.

### **Significant Assumptions**

- The replacement cost model is based on 4 standard stay rooms, 5 extended stay rooms and 1 family suites.
- The upgrade renovation plan, if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.
- The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix
- All costs are adjusted by the Area Cost Factor of 136% for Fort Buchanan, Puerto Rico.

### **Cost Analysis**

- |  |             |
|--|-------------|
| • Condition Assessment Cost                      | \$239,510   |
| • Replacement Cost                               | \$1,213,639 |
| • Condition Assessment to Replacement Cost Ratio | 19.73%      |

Because the Condition Assessment to Replacement Cost Ratio is less than 50.00%, repair, and continued use of Building 679 is recommended.



Bldg 679  
 Fire Suppression  
 Ft. Buchanan, PR

### Attributes

01.Number of Units Constructed	10
02.Number of Units Used	10
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	9
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	1
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	4
11.Operating as Extended Stay	5
12.Operating as Family Suite	1
13.Renovated to Standard	4
14.Renovated to Extended Stay	5
15.Renovated to Family Suite	1
16.Delta renovation	0
17.Remove from Inventory	No
18.Upgrade Renv Cost Model Req	No
19.Renv Cost Model Req	No



Bldg 679  
Typical Lavatory  
Ft. Buchanan, PR

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture is five years old and is in good condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items are also five years old and are in good condition.

- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of continuous concrete spread footing on compacted soil. No signs of failure can be seen in the foundation and it is in good condition.

- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil is showing no signs of stress and is in good condition.

- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is slab on grade for the first floor and poured concrete on a steel deck supported by poured concrete columns for the second floor and is in good condition.

- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The roof structure is a fire-stop metal deck with metal joists and rafters supporting a standing seam metal roof and is in good condition.

- Recommendation: No corrective action required.

### Exterior Enclosure

#### Exterior Walls

- Analysis: The exterior walls are stucco over concrete and are in good condition.

- Recommendation: No corrective action required.

#### Exterior Windows

- Analysis: The exterior windows are double pane, low E, sliding glass balcony doors in the guest rooms; double pane, low E storefront in the lobby; and double pane, low E single hung in the administrative and back-of-house spaces. All are in good condition.

- Recommendation: No corrective action required.



**Bldg 679**  
**Typical Bedroom FF&E**  
**Ft. Buchanan, PR**

### **Exterior Doors**

- Analysis: The exterior doors are aluminum storefront in the lobby; commercial steel in steel frames in the guest room entry doors; and commercial steel in steel frames in the back-of-house spaces. The storefront is in good condition. All door closure hardware for the commercial steel door in the guest rooms and back-of-house spaces are failing and in poor condition.
- Recommendation: Replace all door closure hardware.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is a standing seam metal roof and is in good condition.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The partitions are drywall on metal studs and are in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The interior doors are fire rated, wooden doors in steel frames and are in good condition.
- Recommendation: No corrective action required.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are paint on drywall in the administration and back-of-house areas; paint on stucco in the guest rooms, lobby and common areas; and all are in poor condition.
- Recommendation: Install vinyl wall covering in the guest rooms, common areas, and lobby; and paint the back-of-house and administrative areas.

#### **Floor Finishes**

- Analysis: The floor finishes consist of carpet in the guest rooms and offices; ceramic tile in the bathrooms and common areas; stone flooring in the guest room kitchenette and lavatory area, lobby, reception and building entrance areas; vinyl tile in the common areas; and concrete in the back-of-house areas. The carpet, ceramic tile and vinyl flooring is in poor condition.
- Recommendation: Replace the carpet and vinyl tile.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted drywall and are in poor condition.
- Recommendation: Repaint the ceilings.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of floor mounted water closets, chrome plated brass faucets for the lavatory and bathtub, and chrome plated brass faucets for the stainless steel kitchen sink. All are in good condition.

- Recommendation: No corrective action required.

### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through copper lines and are in good condition. The waste lines are PVC piping and are in good condition. Hot water is produced from a gas fired, on-demand boiler and distributed through insulated copper lines. The hot water generation and distribution system is in good condition.

- Recommendation: No corrective action required

## **HVAC**

### **Cooling Generating Systems**

- Analysis: Heating and cooling is supplied by the original PTAC units in the guest rooms. The PTAC units are failing and are in poor condition.

- Recommendation: Replace all PTAC units.

## **Fire Protection**

### **Sprinklers**

- Analysis: The fire sprinkler system installed in this building is in good condition. The kitchenettes are missing fire suppression systems.

- Recommendation: Install fire suppression in the kitchenettes.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied from a pad mounted transformer supplying 120/208 volt, three phase power to the 2000 amp main switchboard. Distribution panels are located throughout the building and consist of original panels and branch wiring on each floor. These panels provided power to all lights and outlets in the building. The switchboard, panels, branch wiring, switches, outlets and fixtures are in good condition.

- Recommendation: No corrective action required.

### **Communications and Security**

- Analysis: The fire alarm system consists of smoke detectors in each room and horns and strobes in the rooms, walkways and common areas. The fire alarm system is in good condition.

- Recommendation: No corrective action required.

## Equipment

### Other Equipment

- Analysis: There is a micro-fridge and microwave oven in each guest room and all are in good condition. There are no two burner stoves with exhaust hoods installed in any guest room in the facility.
- Recommendation: Install two burner stoves in extended stay and family suite guest rooms.

## Site Preparation

### Site Earthwork

- Analysis: The site consists of landscaped grassy areas framed by sidewalks, shrubs and trees and is in good condition.
- Recommendation: No corrective action required.

## Site Improvements

### Parking Lots

- Analysis: The asphalt parking lots are in good condition.
- Recommendation: No corrective action required.

## Site Electrical Utilities

### Site Lighting

- Analysis: The parking areas and walkways have pole mounted mercury vapor lights and bollard lights, and the building has mercury vapor wall packs. Site lighting is in good condition.
- Recommendation: No corrective action required.



Bldg 679  
Typical Water Closet  
Ft. Buchanan, PR

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Housekeeping Rooms**

Meets majority of Functional Criteria.  
Renovation not required.

- **Utility Rooms**

**(Mech/Elec/Data/Comm/Switch/Elevator Equipment Rooms)**

Meets majority of Functional Criteria.  
Renovation not required.

#### Guest Rooms

- **Extended Stay Rooms**

Rooms are oversized at approximately 400 s.f., but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners. Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.

*Building 679*

- **Family Suites**  
Rooms are oversized at over 700 s.f. but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners.  
Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.
- **Standard Stay Rooms**  
Meets majority of functional criteria.  
Renovation not required.

#### **Public Spaces**

- **Guest Bulk Storage**  
Does not exist, is required based on Functional Criteria.  
Renovation of building 678 will include function for lodging campus as part of the Wellness Recommendation.
- **Guest Laundry Area**  
Does not exist, space is included in building 678.  
Renovation not required.
- **Public Corridors**  
Corridors are exterior.  
Renovation not viable based on building configuration.
- **Vending**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Vestibule**  
Does not exist, is required based on Functional Criteria.  
Renovation not viable based on building configuration.

#### **Site**

- **Community Planning**  
The existing Lodging building is located within a well defined campus area and close to community facilities. The architecture of the Lodging campus is compatible with local installation architectural guidance. Exterior building architecture and material selections blend with the surrounding community and facilities and is context with regional influences.
- **Force Protection**  
The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.
- **Site Amenities**  
The existing Lodging facility is part of an existing cohesive Lodging campus, and includes most required site amenities.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>2.08%</b>	<b>\$2,951.20</b>
Closer - Damaged or Failing		\$2,951.20
<b>09 Finishes</b>	<b>69.07%</b>	<b>\$98,217.15</b>
Carpet: Beyond Useful Life		\$29,363.51
Interior ceilings: Paint Failing		\$4,345.80
Vinyl walcovering, missing or inadequate		\$64,507.84
<b>11 Equipment</b>	<b>4.60%</b>	<b>\$6,536.16</b>
Stove: Missing or inadequate		\$6,536.16
<b>13 Special Construction</b>	<b>2.87%</b>	<b>\$4,080.00</b>
CO2 System: Missing or Inadequate		\$4,080.00
<b>15 Mechanical</b>	<b>21.39%</b>	<b>\$30,417.60</b>
Kitchen exhaust: Damaged or failing		\$8,067.36
PTAC: Damaged or failing		\$22,350.24
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$142,202.11</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$782.11
Force Protection	9.00%	\$14,148.40
General Conditions	10.00%	\$14,220.21
<b>Total Additional Hard Cost</b>		<b>\$29,150.72</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$17,135.28
SIOH Conus	6.50%	\$12,251.73
Design	10.00%	\$17,135.28
08 MYr Inflation Fct	9.93%	\$21,635.00
<b>Total Soft Cost</b>		<b>\$68,157.29</b>
<b>Total Project</b>		<b>\$239,510.13</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>6.51%</b>	<b>\$53,392.24</b>
Parking Lots		\$11,369.60
Site Earthwork		\$42,022.64
<b>03 Concrete</b>	<b>11.56%</b>	<b>\$94,737.60</b>
Floor Construction		\$32,640.00
Slab on Grade		\$31,048.80
Standard Foundations		\$31,048.80
<b>04 Masonry</b>	<b>8.30%</b>	<b>\$68,078.70</b>
Exterior Walls		\$68,078.70
<b>07 Thermal &amp; Moisture Protection</b>	<b>11.62%</b>	<b>\$95,233.69</b>
Roof Construction		\$18,199.77
Roof Coverings		\$77,033.92
<b>08 Doors &amp; Windows</b>	<b>12.31%</b>	<b>\$100,872.56</b>
Exterior Doors		\$8,384.40
Exterior Windows		\$76,160.00
Interior Doors		\$16,328.16
<b>09 Finishes</b>	<b>14.38%</b>	<b>\$117,856.17</b>
Ceiling Finishes		\$17,860.36
Floor Finishes		\$43,164.14
Partitions		\$32,347.43
Wall Finishes		\$24,484.24
<b>11 Equipment</b>	<b>3.48%</b>	<b>\$28,560.00</b>
Other Equipment		\$28,560.00
<b>13 Special Construction</b>	<b>4.56%</b>	<b>\$37,382.76</b>
Communications & Security		\$16,828.45
Sprinklers		\$20,554.31
<b>15 Mechanical</b>	<b>14.05%</b>	<b>\$115,162.08</b>
Cooling Generating Systems		\$49,678.08
Domestic Water Dist		\$25,704.00
Plumbing Fixtures		\$39,780.00
<b>16 Electrical</b>	<b>7.13%</b>	<b>\$58,467.76</b>
Electrical Service & Distribution		\$55,482.56
Site Lighting		\$2,985.20
<b>19 FF&amp;E</b>	<b>6.10%</b>	<b>\$50,000.00</b>
Interior FF&E allowance		\$50,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$819,743.56</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,508.59
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$81,974.36
<b>Total Additional Hard Cost</b>		<b>\$86,482.95</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$45,311.33
SIOH Conus	6.50%	\$61,849.96
Design	10.00%	\$90,622.65
08 MYr Inflation Fct	9.93%	\$109,628.24
<b>Total Soft Cost</b>		<b>\$307,412.17</b>
<b>Total Project Cost for Replacement</b>		<b>\$1,213,638.67</b>

**INSERT BUILDING 679 FLOOR PLAN HERE**



*Bldg 680  
Front View  
Ft. Buchanan, PR*

## **Building 680**

---

Building 680, constructed in 1999, is a one story stucco and masonry building housing 5 standard rooms, 5 extended stay rooms, and 1 family suite. This building is one of the satellite buildings within the main Lodging campus area (buildings 678-681). This building is in good condition, although ,rooms do not meet the Lodging size requirements. Many of the room sizes are larger than standards, but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria. The cost to make condition assessment improvements and minor modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 680 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.

### **Significant Assumptions**

- The replacement cost model is based on 5 standard stay rooms, 5 extended stay rooms and 1 family suites.
- The upgrade renovation plan, if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.
- The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix
- All costs are adjusted by the Area Cost Factor of 136% for Fort Buchanan, Puerto Rico.

### **Cost Analysis**

- |  |             |
|--|-------------|
| • Condition Assessment Cost                      | \$243,354   |
| • Replacement Cost                               | \$1,471,319 |
| • Condition Assessment to Replacement Cost Ratio | 16.54%      |

Because the Condition Assessment to Replacement Cost Ratio is less than 50.00%, repair, and continued use of Building 680 is recommended.



Bldg 680  
 Typical Kitchenette  
 Ft. Buchanan, PR

### Attributes

01.Number of Units Constructed	11
02.Number of Units Used	11
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	10
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	1
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	5
11.Operating as Extended Stay	5
12.Operating as Family Suite	1
13.Renovated to Standard	5
14.Renovated to Extended Stay	5
15.Renovated to Family Suite	1
16.Delta renovation	0
17.Remove from Inventory	No
18.Upgrade Renv Cost Model Req	No
19.Renv Cost Model Req	No



Bldg 680  
Typical Bathroom  
Ft. Buchanan, PR

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture is five years old and is in good condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items are also five years old and are in good condition.
- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of continuous concrete spread footing on compacted soil. No signs of failure can be seen in the foundation and it is in good condition.
- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil is showing no signs of stress and is in good condition.
- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is slab on grade for the first floor and poured concrete on a steel deck supported by poured concrete columns for the second floor and is in good condition.
- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The roof structure is a fire-stop metal deck with metal joists and rafters supporting a standing seam metal roof and is in good condition.
- Recommendation: No corrective action required.

### Exterior Enclosure

#### Exterior Walls

- Analysis: The exterior walls are stucco over concrete and are in good condition.
- Recommendation: No corrective action required.

#### Exterior Windows

- Analysis: The exterior windows are double pane, low E, sliding glass balcony doors in the guest rooms; double pane, low E storefront in the lobby; and double pane, low E single hung in the administrative and back-of-house spaces. All are in good condition.
- Recommendation: No corrective action required.



***Bldg 680  
Typical Living Room FF&E  
Ft. Buchanan, PR***

### **Exterior Doors**

- Analysis: The exterior doors are aluminum storefront in the lobby; commercial steel in steel frames in the guest room entry doors; and commercial steel in steel frames in the back-of-house spaces. The storefront is in good condition. All door closure hardware for the commercial steel door in the guest rooms and back-of-house spaces are failing and in poor condition.
- Recommendation: Replace all door closure hardware.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is a standing seam metal roof and is in good condition.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The partitions are drywall on metal studs and are in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The interior doors are fire rated, wooden doors in steel frames and are in good condition.
- Recommendation: No corrective action required.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are paint on drywall in the administration and back-of-house areas; paint on stucco in the guest rooms, lobby and common areas; and all are in poor condition.
- Recommendation: Install vinyl wall covering in the guest rooms, common areas, and lobby; and paint the back-of-house and administrative areas.

#### **Floor Finishes**

- Analysis: The floor finishes consist of carpet in the guest rooms and offices; ceramic tile in the bathrooms and common areas; stone flooring in the guest room kitchenette and lavatory area, lobby, reception and building entrance areas; vinyl tile in the common areas; and concrete in the back-of-house areas. The carpet, ceramic tile and vinyl flooring is in poor condition.
- Recommendation: Replace the carpet and vinyl tile.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted drywall and are in poor condition.
- Recommendation: Repaint the ceilings.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of floor mounted water closets, chrome plated brass faucets for the lavatory and bathtub, and chrome plated brass faucets for the stainless steel kitchen sink. All are in good condition.

- Recommendation: No corrective action required.

### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through copper lines and are in good condition. The waste lines are PVC piping and are in good condition. Hot water is produced from a gas fired, on-demand boiler and distributed through insulated copper lines. The hot water generation and distribution system is in good condition.

- Recommendation: No corrective action required

## **HVAC**

### **Cooling Generating Systems**

- Analysis: Heating and cooling is supplied by the original PTAC units in the guest rooms. The PTAC units are failing and are in poor condition.

- Recommendation: Replace all PTAC units.

## **Fire Protection**

### **Sprinklers**

- Analysis: The fire sprinkler system installed in this building is in good condition. The kitchenettes are missing fire suppression systems

- Recommendation: Install fire suppression in the kitchenettes.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied from a pad mounted transformer supplying 120/208 volt, three phase power to the 2000 amp main switchboard. Distribution panels are located throughout the building and consist of original panels and branch wiring on each floor. These panels provided power to all lights and outlets in the building. The switchboard, panels, branch wiring, switches, outlets and fixtures are in good condition.

- Recommendation: No corrective action required.

### **Communications and Security**

- Analysis: The fire alarm system consists of smoke detectors in each room and horns and strobes in the rooms, walkways and common areas. The fire alarm system is in good condition.

- Recommendation: No corrective action required.

## Equipment

### Other Equipment

- Analysis: There is a micro-fridge and microwave oven in each guest room and all are in good condition. There are no two burner stoves with exhaust hoods installed in any guest room in the facility.
- Recommendation: Install two burner stoves in extended stay and family suite guest rooms.

## Site Preparation

### Site Earthwork

- Analysis: The site consists of landscaped grassy areas framed by sidewalks, shrubs and trees and is in good condition.
- Recommendation: No corrective action required.

## Site Improvements

### Parking Lots

- Analysis: The asphalt parking lots are in good condition.
- Recommendation: No corrective action required.

## Site Electrical Utilities

### Site Lighting

- Analysis: The parking areas and walkways have pole mounted mercury vapor lights and bollard lights, and the building has mercury vapor wall packs. Site lighting is in good condition.
- Recommendation: No corrective action required.



Bldg 680  
Typical Ceiling  
Ft. Buchanan, PR

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Housekeeping Rooms**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Utility Rooms  
(Mech/Elec/Data/Comm/Switch/Elevator Equipment Rooms)**  
Meets majority of Functional Criteria.  
Renovation not required.

#### Guest Rooms

- **Extended Stay Rooms**  
Rooms are oversized at approximately 400 s.f., but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners. Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.

*Building 680*

- **Family Suites**  
Rooms are oversized at over 700 s.f. but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners.  
Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.
- **Standard Stay Rooms**  
Meets majority of functional criteria.  
Renovation not required.

#### **Public Spaces**

- **Guest Bulk Storage**  
Does not exist, is required based on Functional Criteria. Renovation of building 678 will include function for lodging campus as part of the Wellness Recommendation.
- **Guest Laundry Area**  
Does not exist, space is included in building 678. Renovation not required,
- **Public Corridors**  
Corridors are exterior.  
Renovation not viable based on building configuration.
- **Vending**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Vestibule**  
Does not exist, is required based on Functional Criteria.  
Renovation not viable based on building configuration.

#### **Site**

- **Community Planning**  
The existing Lodging building is located within a well defined campus area and close to community facilities. The architecture of the Lodging campus is compatible with local installation architectural guidance. Exterior building architecture and material selections blend with the surrounding community and facilities and is context with regional influences.
- **Force Protection**  
The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.
- **Site Amenities**  
The existing Lodging facility is part of an existing cohesive Lodging campus, and includes most required site amenities.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>2.07%</b>	<b>\$3,246.32</b>
Closer - Damaged or Failing		\$3,246.32
<b>09 Finishes</b>	<b>68.48%</b>	<b>\$107,358.47</b>
Carpet: Beyond Useful Life		\$30,268.34
Interior ceilings: Paint Failing		\$4,660.34
Vinyl walcovering, missing or inadequate		\$72,429.79
<b>11 Equipment</b>	<b>4.86%</b>	<b>\$7,625.52</b>
Stove: Missing or inadequate		\$7,625.52
<b>13 Special Construction</b>	<b>3.04%</b>	<b>\$4,760.00</b>
CO2 System: Missing or Inadequate		\$4,760.00
<b>15 Mechanical</b>	<b>21.55%</b>	<b>\$33,791.28</b>
Kitchen exhaust: Damaged or failing		\$9,411.92
PTAC: Damaged or failing		\$24,379.36
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$156,781.59</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$862.30
Force Protection	9.00%	\$15,598.98
General Conditions	10.00%	\$15,678.16
<b>Total Additional Hard Cost</b>		<b>\$32,139.44</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$18,892.10
SIOH Conus	6.50%	\$13,507.85
Design	10.00%	\$18,892.10
08 MYr Inflation Fct	9.93%	\$23,853.16
<b>Total Soft Cost</b>		<b>\$75,145.22</b>
<b>Total Project</b>		<b>\$264,066.25</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>6.97%</b>	<b>\$69,312.06</b>
Parking Lots		\$13,436.80
Site Earthwork		\$55,875.26
<b>03 Concrete</b>	<b>12.69%</b>	<b>\$126,140.00</b>
Floor Construction		\$43,520.00
Slab on Grade		\$41,310.00
Standard Foundations		\$41,310.00
<b>04 Masonry</b>	<b>8.30%</b>	<b>\$82,461.53</b>
Exterior Walls		\$82,461.53
<b>07 Thermal &amp; Moisture Protection</b>	<b>12.60%</b>	<b>\$125,168.75</b>
Roof Construction		\$23,009.09
Roof Coverings		\$102,159.65
<b>08 Doors &amp; Windows</b>	<b>10.81%</b>	<b>\$107,438.64</b>
Exterior Doors		\$8,384.40
Exterior Windows		\$81,600.00
Interior Doors		\$17,454.24
<b>09 Finishes</b>	<b>13.52%</b>	<b>\$134,376.40</b>
Ceiling Finishes		\$20,041.25
Floor Finishes		\$48,296.52
Partitions		\$38,649.22
Wall Finishes		\$27,389.42
<b>11 Equipment</b>	<b>2.87%</b>	<b>\$28,560.00</b>
Other Equipment		\$28,560.00
<b>13 Special Construction</b>	<b>5.00%</b>	<b>\$49,737.24</b>
Communications & Security		\$22,390.02
Sprinklers		\$27,347.22
<b>15 Mechanical</b>	<b>14.06%</b>	<b>\$139,685.60</b>
Cooling Generating Systems		\$66,096.00
Domestic Water Dist		\$28,152.00
Plumbing Fixtures		\$45,437.60
<b>16 Electrical</b>	<b>7.64%</b>	<b>\$75,911.80</b>
Electrical Service & Distribution		\$72,926.60
Site Lighting		\$2,985.20
<b>19 FF&amp;E</b>	<b>5.53%</b>	<b>\$55,000.00</b>
Interior FF&E allowance		\$55,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$993,792.01</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,465.86
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$99,379.20
<b>Total Additional Hard Cost</b>		<b>\$104,845.06</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$54,931.85
SIOH Conus	6.50%	\$74,981.98
Design	10.00%	\$109,863.71
08 MYr Inflation Fct	9.93%	\$132,904.57
<b>Total Soft Cost</b>		<b>\$372,682.11</b>
<b>Total Project Cost for Replacement</b>		<b>\$1,471,319.18</b>

**INSERT BUILDING 680 FLOOR PLAN HERE**



*Bldg 681  
Front View  
Ft. Buchanan, PR*

## **Building 681**

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Building 681, constructed in 1999, is a one story stucco and masonry building housing 4 standard rooms, 5 extended stay rooms, and 1 family suite. This building is one of the satellite buildings within the main Lodging campus area (buildings 678-681). This building is in good condition, although rooms do not meet the Lodging size requirements. Many of the room sizes are larger than standards, but renovations to meet the sizing standards are not viable because of building configuration. The majority of the support spaces meet Army Lodging criteria. The cost to make condition assessment improvements and minor modifications to meet functional criteria does not exceed 50% of the replacement cost.

Our recommendation is to retain Building 681 in the Fort Buchanan Lodging inventory. This facility will remain in the Fort Buchanan Wellness Solution and Lodging Master Plan.

### **Significant Assumptions**

- The replacement cost model is based on 4 standard stay rooms, 5 extended stay rooms and 1 family suites.
- The upgrade renovation plan, if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.
- The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix
- All costs are adjusted by the Area Cost Factor of 136% for Fort Buchanan, Puerto Rico.

### **Cost Analysis**

• Condition Assessment Cost	\$239,510
• Replacement Cost	\$1,213,639
• Condition Assessment to Replacement Cost Ratio	19.73%

Because the Condition Assessment to Replacement Cost Ratio is less than 50.00%, repair, and continued use of Building 681 is recommended.



Bldg 681  
 Typical Bedroom FF&E  
 Ft. Buchanan, PR

### Attributes

01.Number of Units Constructed	10
02.Number of Units Used	10
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	9
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	1
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	4
11.Operating as Extended Stay	5
12.Operating as Family Suite	1
13.Renovated to Standard	4
14.Renovated to Extended Stay	5
15.Renovated to Family Suite	1
16.Delta renovation	0
17.Remove from Inventory	No
18.Upgrade Renv Cost Model Req	No
19.Renv Cost Model Req	No



Bldg 681  
Typical Shower and Tile  
Ft. Buchanan, PR

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture is five years old and is in good condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items are also five years old and are in good condition.
- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of continuous concrete spread footing on compacted soil. No signs of failure can be seen in the foundation and it is in good condition.
- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil is showing no signs of stress and is in good condition.
- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is slab on grade for the first floor and poured concrete on a steel deck supported by poured concrete columns for the second floor and is in good condition.
- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The roof structure is a fire-stop metal deck with metal joists and rafters supporting a standing seam metal roof and is in good condition.
- Recommendation: No corrective action required.

### Exterior Enclosure

#### Exterior Walls

- Analysis: The exterior walls are stucco over concrete and are in good condition.
- Recommendation: No corrective action required.

#### Exterior Windows

- Analysis: The exterior windows are double pane, low E, sliding glass balcony doors in the guest rooms; double pane, low E storefront in the lobby; and double pane, low E single hung in the administrative and back-of-house spaces. All are in good condition.
- Recommendation: No corrective action required.



***Bldg 681  
Typical Single Room  
Ft. Buchanan, PR***

### **Exterior Doors**

- Analysis: The exterior doors are aluminum storefront in the lobby; commercial steel in steel frames in the guest room entry doors; and commercial steel in steel frames in the back-of-house spaces. The storefront is in good condition. All door closure hardware for the commercial steel door in the guest rooms and back-of-house spaces are failing and in poor condition.
- Recommendation: Replace all door closure hardware.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is a standing seam metal roof and is in good condition.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The partitions are drywall on metal studs and are in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The interior doors are fire rated, wooden doors in steel frames and are in good condition.
- Recommendation: No corrective action required.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are paint on drywall in the administration and back-of-house areas; paint on stucco in the guest rooms, lobby and common areas; and all are in poor condition.
- Recommendation: Install vinyl wall covering in the guest rooms, common areas, and lobby; and paint the back-of-house and administrative areas.

#### **Floor Finishes**

- Analysis: The floor finishes consist of carpet in the guest rooms and offices; ceramic tile in the bathrooms and common areas; stone flooring in the guest room kitchenette and lavatory area, lobby, reception and building entrance areas; vinyl tile in the common areas; and concrete in the back-of-house areas. The carpet, ceramic tile and vinyl flooring is in poor condition.
- Recommendation: Replace the carpet and vinyl tile.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted drywall and are in poor condition.
- Recommendation: Repaint the ceilings.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of floor mounted water closets, chrome plated brass faucets for the lavatory and bathtub, and chrome plated brass faucets for the stainless steel kitchen sink. All are in good condition.

- Recommendation: No corrective action required.

### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through copper lines and are in good condition. The waste lines are PVC piping and are in good condition. Hot water is produced from a gas fired, on-demand boiler and distributed through insulated copper lines. The hot water generation and distribution system is in good condition.

- Recommendation: No corrective action required

## **HVAC**

### **Cooling Generating Systems**

- Analysis: Heating and cooling is supplied by the original PTAC units in the guest rooms. The PTAC units are failing and are in poor condition.

- Recommendation: Replace all PTAC units.

## **Fire Protection**

### **Sprinklers**

- Analysis: The fire sprinkler system installed in this building is in good condition. The kitchenettes are missing fire suppression systems.

- Recommendation: Install fire suppression in the kitchenettes.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied from a pad mounted transformer supplying 120/208 volt, three phase power to the 2000 amp main switchboard. Distribution panels are located throughout the building and consist of original panels and branch wiring on each floor. These panels provided power to all lights and outlets in the building. The switchboard, panels, branch wiring, switches, outlets and fixtures are in good condition.

- Recommendation: No corrective action required.

### **Communications and Security**

- Analysis: The fire alarm system consists of smoke detectors in each room and horns and strobes in the rooms, walkways and common areas. The fire alarm system is in good condition.

- Recommendation: No corrective action required.

## Equipment

### Other Equipment

- Analysis: There is a micro-fridge and microwave oven in each guest room and all are in good condition. There are no two burner stoves with exhaust hoods installed in any guest room in the facility.
- Recommendation: Install two burner stoves in extended stay and family suite guest rooms.

## Site Preparation

### Site Earthwork

- Analysis: The site consists of landscaped grassy areas framed by sidewalks, shrubs and trees and is in good condition.
- Recommendation: No corrective action required.

## Site Improvements

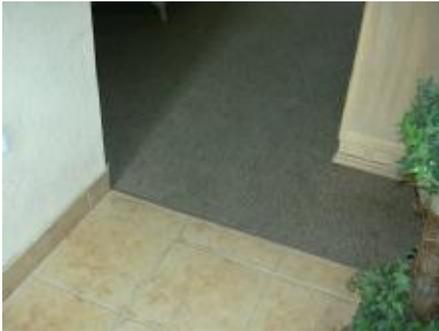
### Parking Lots

- Analysis: The asphalt parking lots are in good condition.
- Recommendation: No corrective action required.

## Site Electrical Utilities

### Site Lighting

- Analysis: The parking areas and walkways have pole mounted mercury vapor lights and bollard lights, and the building has mercury vapor wall packs. Site lighting is in good condition.
- Recommendation: No corrective action required.



Bldg 681  
Typical Entrance Tile  
Ft. Buchanan, PR

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Housekeeping Rooms**

Meets majority of Functional Criteria.  
Renovation not required.

- **Utility Rooms**

**(Mech/Elec/Data/Comm/Switch/Elevator Equipment Rooms)**

Meets majority of Functional Criteria.  
Renovation not required.

#### Guest Rooms

- **Extended Stay Rooms**

Rooms are oversized at approximately 400 s.f., but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners.

*Building 681* Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.

- **Family Suites**  
Rooms are oversized at over 700 s.f. but meet majority of functional criteria. All rooms have a partial kitchenette with cabinets, microwave, refrigerator, and sink, but do not include burners.  
Renovation to reduce s.f. not viable because of building configuration. Renovation will include burner.
- **Standard Stay Rooms**  
Meets majority of functional criteria.  
Renovation not required.

#### **Public Spaces**

- **Guest Bulk Storage**  
Does not exist, is required based on Functional Criteria.  
Renovation of building 678 will include function for lodging campus as part of the Wellness Recommendation.
- **Guest Laundry Area**  
Does not exist, space is included in building 678.  
Renovation not required.
- **Public Corridors**  
Corridors are exterior.  
Renovation not viable based on building configuration.
- **Vending**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Vestibule**  
Does not exist, is required based on Functional Criteria.  
Renovation not viable based on building configuration.

#### **Site**

- **Community Planning**  
The existing Lodging building is located within a well defined campus area and close to community facilities. The architecture of the Lodging campus is compatible with local installation architectural guidance. Exterior building architecture and material selections blend with the surrounding community and facilities and is context with regional influences.
- **Force Protection**  
The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.
- **Site Amenities**  
The existing Lodging facility is part of an existing cohesive Lodging campus, and includes most required site amenities.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>2.08%</b>	<b>\$2,951.20</b>
Closer - Damaged or Failing		\$2,951.20
<b>09 Finishes</b>	<b>69.07%</b>	<b>\$98,217.15</b>
Carpet: Beyond Useful Life		\$29,363.51
Interior ceilings: Paint Failing		\$4,345.80
Vinyl walcovering, missing or inadequate		\$64,507.84
<b>11 Equipment</b>	<b>4.60%</b>	<b>\$6,536.16</b>
Stove: Missing or inadequate		\$6,536.16
<b>13 Special Construction</b>	<b>2.87%</b>	<b>\$4,080.00</b>
CO2 System: Missing or Inadequate		\$4,080.00
<b>15 Mechanical</b>	<b>21.39%</b>	<b>\$30,417.60</b>
Kitchen exhaust: Damaged or failing		\$8,067.36
PTAC: Damaged or failing		\$22,350.24
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$142,202.11</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$782.11
Force Protection	9.00%	\$14,148.40
General Conditions	10.00%	\$14,220.21
<b>Total Additional Hard Cost</b>		<b>\$29,150.72</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$17,135.28
SIOH Conus	6.50%	\$12,251.73
Design	10.00%	\$17,135.28
08 MYr Inflation Fct	9.93%	\$21,635.00
<b>Total Soft Cost</b>		<b>\$68,157.29</b>
<b>Total Project</b>		<b>\$239,510.13</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>6.51%</b>	<b>\$53,392.24</b>
Parking Lots		\$11,369.60
Site Earthwork		\$42,022.64
<b>03 Concrete</b>	<b>11.56%</b>	<b>\$94,737.60</b>
Floor Construction		\$32,640.00
Slab on Grade		\$31,048.80
Standard Foundations		\$31,048.80
<b>04 Masonry</b>	<b>8.30%</b>	<b>\$68,078.70</b>
Exterior Walls		\$68,078.70
<b>07 Thermal &amp; Moisture Protection</b>	<b>11.62%</b>	<b>\$95,233.69</b>
Roof Construction		\$18,199.77
Roof Coverings		\$77,033.92
<b>08 Doors &amp; Windows</b>	<b>12.31%</b>	<b>\$100,872.56</b>
Exterior Doors		\$8,384.40
Exterior Windows		\$76,160.00
Interior Doors		\$16,328.16
<b>09 Finishes</b>	<b>14.38%</b>	<b>\$117,856.17</b>
Ceiling Finishes		\$17,860.36
Floor Finishes		\$43,164.14
Partitions		\$32,347.43
Wall Finishes		\$24,484.24
<b>11 Equipment</b>	<b>3.48%</b>	<b>\$28,560.00</b>
Other Equipment		\$28,560.00
<b>13 Special Construction</b>	<b>4.56%</b>	<b>\$37,382.76</b>
Communications & Security		\$16,828.45
Sprinklers		\$20,554.31
<b>15 Mechanical</b>	<b>14.05%</b>	<b>\$115,162.08</b>
Cooling Generating Systems		\$49,678.08
Domestic Water Dist		\$25,704.00
Plumbing Fixtures		\$39,780.00
<b>16 Electrical</b>	<b>7.13%</b>	<b>\$58,467.76</b>
Electrical Service & Distribution		\$55,482.56
Site Lighting		\$2,985.20
<b>19 FF&amp;E</b>	<b>6.10%</b>	<b>\$50,000.00</b>
Interior FF&E allowance		\$50,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$819,743.56</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,508.59
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$81,974.36
<b>Total Additional Hard Cost</b>		<b>\$86,482.95</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$45,311.33
SIOH Conus	6.50%	\$61,849.96
Design	10.00%	\$90,622.65
08 MYr Inflation Fct	9.93%	\$109,628.24
<b>Total Soft Cost</b>		<b>\$307,412.17</b>
<b>Total Project Cost for Replacement</b>		<b>\$1,213,638.67</b>

**INSERT BUILDING 681 FLOOR PLAN HERE**



*Bldg 801  
Front View  
Ft. Buchanan, PR*

## **Building 801**

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Building 801, constructed in 1965, is a single story facility housing 2 extended stay rooms with a shared kitchen, dining, and living space. Originally constructed as a DVQ facility, this building is in poor condition, and does not meet the Lodging size requirements or provide appropriate support spaces. The cost to make condition assessment improvements to this facility will exceed 50% of the replacement cost.

Our recommendation is to remove building 801 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Buchanan Wellness Solution and Lodging Master Plan.

### **Significant Assumptions**

- The replacement cost model is based on 0 standard stay rooms, 0 extended stay rooms and 2 family suites.
- The renovation plan, if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.
- The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix
- All costs are adjusted by the Area Cost Factor of 136% for Fort Buchanan, Puerto Rico.

### **Cost Analysis**

- |  |           |
|--|-----------|
| • Condition Assessment Cost                      | \$244,441 |
| • Replacement Cost                               | \$313,488 |
| • Condition Assessment to Replacement Cost Ratio | 77.97%    |

Because the Condition Assessment to Replacement Cost Ratio is greater than 50.00%, repair of Building 801 is not recommended.



Bldg 801  
 Typical Window  
 Ft. Buchanan, PR

### Attributes

01.Number of Units Constructed	2
02.Number of Units Used	2
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	2
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	2
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	2
16.Delta renovation	0
17.Remove from Inventory	Yes
18.Upgrade Renv Cost Model Req	No
19.Renv Cost Model Req	No



Bldg 801  
Typical Ceiling  
Ft. Buchanan, PR

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture appears to be five years old and is in good condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items also appear to be five years old and are in good condition.

- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of continuous concrete spread footing on compacted soil. No signs of failure can be seen in the foundation and it is in good condition.

- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil is showing no signs of stress and is in good condition.

- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is concrete slab on grade and is in good condition.

- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The roof is concrete slab supported by load bearing walls and is in good condition.

- Recommendation: No corrective action required.

### Exterior Enclosure

#### Exterior Walls

- Analysis: The exterior walls are painted stucco on concrete. The concrete walls and stucco covering are in good condition. The paint is failing and in poor condition.

- Recommendation: Repaint the exterior walls.

#### Exterior Windows

- Analysis: The original metal windows are single pane, single hung and not low E with metal shutters and are in poor condition.

- Recommendation: Replace all of the windows.



**Bldg 801**  
**Failing Roof Covering**  
**Ft. Buchanan, PR**

### **Exterior Doors**

- Analysis: The exterior doors are wood in metal frames and are in poor condition.
- Recommendation: Replace the exterior doors.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof covering is a tar and gravel modified bitumen and is in poor condition.
- Recommendation: Replace the roof covering.

### **Interior Construction**

#### **Partitions**

- Analysis: The interior partitions are drywall on wood studs and are in poor condition.
- Recommendation: Replace the interior partitions.

#### **Interior Doors**

- Analysis: The original interior doors are wood in wood frames, are not fire rated, show signs of failure and are in poor condition.
- Recommendation: Replace the interior doors.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The interior walls are painted drywall, do not have vinyl wall covering and are in poor condition.
- Recommendation: Install vinyl wall covering.

#### **Floor Finishes**

- Analysis: The floor covering is quarry tile in the entrance, carpet in the living areas, ceramic tile in the bathrooms, and vinyl tile in the kitchen area. The quarry tile in the entrance and ceramic tile in the bathrooms are in good condition. The carpet and vinyl tile is in poor condition.
- Recommendation: Replace the carpet and vinyl floor tile.

#### **Ceiling Finishes**

- Analysis: The interior ceiling finishes are painted drywall. The paint is in poor condition.
- Recommendation: Repaint the interior ceilings.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of floor mounted water closets, chrome plated brass faucets for the lavatory and bathtub, and chrome plated brass faucets for the stainless steel kitchen sink and are less than five years old. All are in good condition.
- Recommendation: Replace all plumbing fixtures due to remodel.

### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through the original copper lines and are in poor condition. The waste lines are the original cast iron piping and are also in poor condition. Hot water is produced from an electric hot water heater mounted outside the building and is in poor condition.
- Recommendation: Replace the domestic water system, sanitary sewer system, and the hot water heater.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: Heating and cooling is supplied by a residential heat pump external to the building and is in poor condition.
- Recommendation: Replace the heat pump.

### **Fire Protection**

#### **Sprinklers**

- Analysis: This building does not have any fire suppression systems.
- Recommendation: Install fire suppression for the building and a FM 200 suppression system for the kitchen stove.

### **Electrical**

#### **Electrical Service/Distribution**

- Analysis: The electrical system consists of the original 200 amp residential breaker, distribution panel, wiring, and fixtures and all are in poor condition.
- Recommendation: Replace the electrical system.

#### **Communications and Security**

- Analysis: There is no fire alarm system in this building.
- Recommendation: Install a fire alarm system.

### **Equipment**

#### **Other Equipment**

- Analysis: There is a refrigerator, microwave oven, dishwasher, and gas stove in the common kitchen. All appear to be five years old and are in good condition.
- Recommendation: No corrective action required.

### **Site Preparation**

#### **Site Earthwork**

- Analysis: The site consists of landscaped grassy areas framed by sidewalks, shrubs and trees and is in good condition. However, site lighting is in poor condition.
- Recommendation: Install additional wall mounted site lighting.



Bldg 801  
Typical Lavatory  
Ft. Buchanan, PR

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Housekeeping Rooms**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Utility Rooms  
(Mech/Elec/Data/Comm/Switch/Elevator Equipment Rooms)**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of Wellness Recommendation.

#### Guest Rooms

- **Extended Stay Rooms**  
Two individual rooms share a common living room and kitchen within a renovated DVQ.  
Renovation not required; facility will be replaced as part of Wellness Recommendation.

#### Public Spaces

- **Guest Bulk Storage**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Guest Laundry Area**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Public Corridors**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Vending**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Vestibule**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

#### Site

- **Community Planning**  
These DVQ's are located in the housing area away from the main lodge. Parking is typical for a military housing unit, with a driveway up to the building. The location of these units does not conform with the installation general plan for future lodging.

- **Force Protection**  
The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.
- **Site Amenities**  
The existing Lodging facility is not part of an existing cohesive Lodging campus, and does not include the required site amenities.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>4.88%</b>	<b>\$7,076.04</b>
Built-up Roof: Beyond Useful Life		\$7,076.04
<b>08 Doors &amp; Windows</b>	<b>33.28%</b>	<b>\$48,295.87</b>
Al. Windows - Beyond Useful Life		\$18,372.51
Exterior Wood Doors: Beyond Useful Life		\$8,606.75
Wood Fire Doors: Missing or Inadequate		\$21,316.61
<b>09 Finishes</b>	<b>17.75%</b>	<b>\$25,758.50</b>
Carpet: Beyond Useful Life		\$5,697.40
Exterior Surfaces: Paint Failing		\$3,557.76
Interior ceilings: Paint Failing		\$1,580.73
Plaster Partitions: Damaged or Failing		\$2,629.53
VCT: Beyond Useful Life		\$1,404.37
Vinyl walcovering, missing or inadequate		\$10,888.71
<b>13 Special Construction</b>	<b>6.12%</b>	<b>\$8,880.05</b>
CO2 System: Missing or Inadequate		\$680.00
Fire Alarm Command: Missing or Inadequate		\$1,122.00
Fire Sprinklers: Missing or Inadequate		\$7,078.05
<b>15 Mechanical</b>	<b>25.24%</b>	<b>\$36,626.33</b>
Bath tub: Replace due to remodel		\$4,310.38
Domestic water system: Beyond expected useful life		\$4,143.11
Kitchen exhaust: Damaged or failing		\$1,344.56
Pipe, sewer or waste: Beyond expected useful life		\$1,986.66
Sink & vanity: Replace due to remodel		\$2,101.74
Sink, kitchen: Replace due to remodel		\$1,119.96
Split system: Beyond expected useful life		\$14,674.67
Water closet: Replace due to remodel		\$2,695.25
Water heater: Beyond expected useful life		\$4,250.00
<b>16 Electrical</b>	<b>12.74%</b>	<b>\$18,492.60</b>
Branch Circuits: Beyond Expected Useful Life		\$5,632.44
Fixture: Incandescent: Beyond expected useful life		\$7,450.08
Inadequate exterior Lighting		\$2,181.44
Main service: Beyond expected useful life		\$3,228.64
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$145,129.39</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$798.21
Force Protection	9.00%	\$14,439.65
General Conditions	10.00%	\$14,512.94
<b>Total Additional Hard Cost</b>		<b>\$29,750.80</b>

**Soft Cost (Template: Army Lodging Renovation)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	10.00%	\$17,488.02
SIOH Conus	6.50%	\$12,503.93
Design	10.00%	\$17,488.02
08 MYr Inflation Fct	9.93%	\$22,080.36
<b>Total Soft Cost</b>		<b>\$69,560.34</b>
<b>Total Project</b>		<b>\$244,440.52</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>3.57%</b>	<b>\$7,555.14</b>
Site Earthwork		\$7,555.14
<b>03 Concrete</b>	<b>11.27%</b>	<b>\$23,872.16</b>
Floor Construction		\$10,433.72
Slab on Grade		\$5,598.05
Standard Foundations		\$7,840.40
<b>04 Masonry</b>	<b>14.77%</b>	<b>\$31,279.15</b>
Exterior Walls		\$31,279.15
<b>07 Thermal &amp; Moisture Protection</b>	<b>10.74%</b>	<b>\$22,736.79</b>
Roof Construction		\$2,652.20
Roof Coverings		\$20,084.60
<b>08 Doors &amp; Windows</b>	<b>12.88%</b>	<b>\$27,282.96</b>
Exterior Doors		\$5,895.60
Exterior Windows		\$16,320.00
Interior Doors		\$5,067.36
<b>09 Finishes</b>	<b>15.31%</b>	<b>\$32,411.38</b>
Ceiling Finishes		\$4,729.33
Floor Finishes		\$9,529.31
Partitions		\$9,655.65
Wall Finishes		\$8,497.09
<b>11 Equipment</b>	<b>4.50%</b>	<b>\$9,520.00</b>
Other Equipment		\$9,520.00
<b>13 Special Construction</b>	<b>3.78%</b>	<b>\$8,012.89</b>
Communications & Security		\$2,822.54
Sprinklers		\$5,190.34
<b>15 Mechanical</b>	<b>11.99%</b>	<b>\$25,396.64</b>
Cooling Generating Systems		\$12,544.64
Domestic Water Dist		\$4,896.00
Plumbing Fixtures		\$7,956.00
<b>16 Electrical</b>	<b>6.46%</b>	<b>\$13,676.16</b>
Electrical Service & Distribution		\$13,676.16
<b>19 FF&amp;E</b>	<b>4.72%</b>	<b>\$10,000.00</b>
Interior FF&E allowance		\$10,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$211,743.27</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$1,164.59
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$21,174.33
<b>Total Additional Hard Cost</b>		<b>\$22,338.92</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$11,704.11
SIOH Conus	6.50%	\$15,976.11
Design	10.00%	\$23,408.22
08 MYr Inflation Fct	9.93%	\$28,317.44
<b>Total Soft Cost</b>		<b>\$79,405.88</b>
<b>Total Project Cost for Replacement</b>		<b>\$313,488.07</b>

**INSERT BUILDING 801 FLOOR PLAN HERE**



*Bldg 802  
Side View  
Ft. Buchanan, PR*

## **Building 802**

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Building 802, constructed in 1965, is a single story facility housing 2 extended stay rooms with a shared kitchen, dining, and living space. Originally constructed as a DVQ facility, this building is in poor condition, and does not meet the Lodging size requirements or provide appropriate support spaces. The cost to make condition assessment improvements to this facility will exceed 50% of the replacement cost.

Our recommendation is to remove building 802 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Fort Buchanan Wellness Solution and Lodging Master Plan.

### **Significant Assumptions**

- The replacement cost model is based on 0 standard stay rooms, 0 extended stay rooms and 2 family suites.
- The renovation plan, if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.
- The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix
- All costs are adjusted by the Area Cost Factor of 136% for Fort Buchanan, Puerto Rico.

### **Cost Analysis**

- |  |           |
|--|-----------|
| • Condition Assessment Cost                      | \$244,441 |
| • Replacement Cost                               | \$313,488 |
| • Condition Assessment to Replacement Cost Ratio | 77.97%    |

Because the Condition Assessment to Replacement Cost Ratio is greater than 50.00%, repair of Building 802 is not recommended.



Bldg 802  
Entryway  
Ft. Buchanan, PR

### Attributes

01.Number of Units Constructed	2
02.Number of Units Used	2
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	2
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	2
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	2
16.Delta renovation	0
17.Remove from Inventory	Yes
18.Upgrade Renv Cost Model Req	No
19.Renv Cost Model Req	No



Bldg 802  
Typical Ceiling  
Ft. Buchanan, PR

## Condition Analysis/Recommendation

### FF&E

#### FF&E Allowance

- Analysis: The hard goods consist of headboards, night stands, dresser, chair, couch, coffee table, and TV stands. This furniture appears to be five years old and is in good condition. The soft goods consist of drapes and blinds on the windows, TVs, mattresses and box springs, and bed coverings. These items also appear to be five years old and are in good condition.
- Recommendation: No corrective action required.

### Foundations

#### Standard Foundations

- Analysis: The foundation is composed of continuous concrete spread footing on compacted soil. No signs of failure can be seen in the foundation and it is in good condition.
- Recommendation: No corrective action required.

#### Slab on Grade

- Analysis: The poured-in-place concrete slab on compacted soil is showing no signs of stress and is in good condition.
- Recommendation: No corrective action required.

### Superstructure

#### Floor Construction

- Analysis: The floor structure is concrete slab on grade and is in good condition.
- Recommendation: No corrective action required.

#### Roof Construction

- Analysis: The roof is concrete slab supported by load bearing walls and is in good condition.
- Recommendation: No corrective action required.

### Exterior Enclosure

#### Exterior Walls

- Analysis: The exterior walls are painted stucco on concrete. The concrete walls and stucco covering are in good condition. The paint is failing and in poor condition.
- Recommendation: Repaint the exterior walls.

#### Exterior Windows

- Analysis: The original metal windows are single pane, single hung and not low E with metal shutters and are in poor condition.
- Recommendation: Replace all of the windows.



**Bldg 802**  
**Living Room**  
**Ft. Buchanan, PR**

### **Exterior Doors**

- Analysis: The exterior doors are wood in metal frames and are in poor condition.
- Recommendation: Replace the exterior doors.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof covering is a tar and gravel modified bitumen and is in poor condition.
- Recommendation: Replace the roof covering.

### **Interior Construction**

#### **Partitions**

- Analysis: The interior partitions are drywall on wood studs and are in poor condition.
- Recommendation: Replace the interior partitions.

#### **Interior Doors**

- Analysis: The original interior doors are wood in wood frames, are not fire rated, show signs of failure and are in poor condition.
- Recommendation: Replace the interior doors.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The interior walls are painted drywall, do not have vinyl wall covering and are in poor condition.
- Recommendation: Install vinyl wall covering.

#### **Floor Finishes**

- Analysis: The floor covering is quarry tile in the entrance, carpet in the living areas, ceramic tile in the bathrooms, and vinyl tile in the kitchen area. The quarry tile in the entrance and ceramic tile in the bathrooms are in good condition. The carpet and vinyl tile is in poor condition.
- Recommendation: Replace the carpet and vinyl floor tile.

#### **Ceiling Finishes**

- Analysis: The interior ceiling finishes are painted drywall. The paint is in poor condition.
- Recommendation: Repaint the interior ceilings.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: The plumbing fixtures consist of floor mounted water closets, chrome plated brass faucets for the lavatory and bathtub, and chrome plated brass faucets for the stainless steel kitchen sink and are less than five years old. All are in good condition.
- Recommendation: Replace all plumbing fixtures due to remodel.

### **Domestic Water Distribution**

- Analysis: The domestic water is supplied through the original copper lines and are in poor condition. The waste lines are the original cast iron piping and are also in poor condition. Hot water is produced from an electric hot water heater mounted outside the building and is in poor condition.
- Recommendation: Replace the domestic water system, sanitary sewer system, and the hot water heater.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: Heating and cooling is supplied by a residential heat pump external to the building and is in poor condition.
- Recommendation: Replace the heat pump.

### **Fire Protection**

#### **Sprinklers**

- Analysis: This building does not have any fire suppression systems.
- Recommendation: Install fire suppression for the building and a FM 200 suppression system for the kitchen stove.

### **Electrical**

#### **Electrical Service/Distribution**

- Analysis: The electrical system consists of the original 200 amp residential breaker, distribution panel, wiring, and fixtures and all are in poor condition.
- Recommendation: Replace the electrical system.

#### **Communications and Security**

- Analysis: There is no fire alarm system in this building.
- Recommendation: Install a fire alarm system.

### **Equipment**

#### **Other Equipment**

- Analysis: There is a refrigerator, microwave oven, dishwasher, and gas stove in the common kitchen. All appear to be five years old and are in good condition.
- Recommendation: No corrective action required.

### **Site Preparation**

#### **Site Earthwork**

- Analysis: The site consists of landscaped grassy areas framed by sidewalks, shrubs and trees and is in good condition. However, site lighting is in poor condition.
- Recommendation: Install additional wall mounted site lighting.



Bldg 802  
Typical Wall Finish  
Ft. Buchanan, PR

## Major Functional Criteria

### CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

#### Back of the House Spaces

- **Housekeeping Rooms**  
Meets majority of Functional Criteria.  
Renovation not required.
- **Utility Rooms  
(Mech/Elec/Data/Comm/Switch/Elevator Equipment Rooms)**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

#### Guest Rooms

- **Extended Stay Rooms**  
Two individual rooms share a common living room and Kitchen within a renovated DVQ.  
Renovation not required; facility will be replaced as part of Wellness Recommendation.

#### Public Spaces

- **Guest Bulk Storage**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Guest Laundry Area**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Public Corridors**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Vending**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Vestibule**  
Does not exist, is required based on Functional Criteria.  
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

#### Site

- **Community Planning**  
These DVQ's are located in the housing area away from the main lodge. Parking is typical for a military housing unit, with a driveway up to the building. The location of these units does not conform with the installation general plan for future lodging.

- **Force Protection**  
The existing Lodging facility siting does not consider force protection setback constraints from existing roads and parking. Roads and parking are constructed adjacent to the existing Lodging buildings, within force protection setback constraints.
- **Site Amenities**  
The existing Lodging facility is not part of an existing cohesive Lodging campus, and does not include the required site amenities.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>4.88%</b>	<b>\$7,076.04</b>
Built-up Roof: Beyond Useful Life		\$7,076.04
<b>08 Doors &amp; Windows</b>	<b>33.28%</b>	<b>\$48,295.87</b>
Al. Windows - Beyond Useful Life		\$18,372.51
Exterior Wood Doors: Beyond Useful Life		\$8,606.75
Wood Fire Doors: Missing or Inadequate		\$21,316.61
<b>09 Finishes</b>	<b>17.75%</b>	<b>\$25,758.50</b>
Carpet: Beyond Useful Life		\$5,697.40
Exterior Surfaces: Paint Failing		\$3,557.76
Interior ceilings: Paint Failing		\$1,580.73
Plaster Partitions: Damaged or Failing		\$2,629.53
VCT: Beyond Useful Life		\$1,404.37
Vinyl walcovering, missing or inadequate		\$10,888.71
<b>13 Special Construction</b>	<b>6.12%</b>	<b>\$8,880.05</b>
CO2 System: Missing or Inadequate		\$680.00
Fire Alarm Command: Missing or Inadequate		\$1,122.00
Fire Sprinklers: Missing or Inadequate		\$7,078.05
<b>15 Mechanical</b>	<b>25.24%</b>	<b>\$36,626.33</b>
Bath tub: Replace due to remodel		\$4,310.38
Domestic water system: Beyond expected useful life		\$4,143.11
Kitchen exhaust: Damaged or failing		\$1,344.56
Pipe, sewer or waste: Beyond expected useful life		\$1,986.66
Sink & vanity: Replace due to remodel		\$2,101.74
Sink, kitchen: Replace due to remodel		\$1,119.96
Split system: Beyond expected useful life		\$14,674.67
Water closet: Replace due to remodel		\$2,695.25
Water heater: Beyond expected useful life		\$4,250.00
<b>16 Electrical</b>	<b>12.74%</b>	<b>\$18,492.60</b>
Branch Circuits: Beyond Expected Useful Life		\$5,632.44
Fixture: Incandescent: Beyond expected useful life		\$7,450.08
Inadequate exterior Lighting		\$2,181.44
Main service: Beyond expected useful life		\$3,228.64
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$145,129.39</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$798.21
Force Protection	9.00%	\$14,439.65
General Conditions	10.00%	\$14,512.94
<b>Total Additional Hard Cost</b>		<b>\$29,750.80</b>

**Soft Cost (Template: Army Lodging Renovation)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	10.00%	\$17,488.02
SIOH Conus	6.50%	\$12,503.93
Design	10.00%	\$17,488.02
08 MYr Inflation Fct	9.93%	\$22,080.36
<b>Total Soft Cost</b>		<b>\$69,560.34</b>
<b>Total Project</b>		<b>\$244,440.52</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>3.57%</b>	<b>\$7,555.14</b>
Site Earthwork		\$7,555.14
<b>03 Concrete</b>	<b>11.27%</b>	<b>\$23,872.16</b>
Floor Construction		\$10,433.72
Slab on Grade		\$5,598.05
Standard Foundations		\$7,840.40
<b>04 Masonry</b>	<b>14.77%</b>	<b>\$31,279.15</b>
Exterior Walls		\$31,279.15
<b>07 Thermal &amp; Moisture Protection</b>	<b>10.74%</b>	<b>\$22,736.79</b>
Roof Construction		\$2,652.20
Roof Coverings		\$20,084.60
<b>08 Doors &amp; Windows</b>	<b>12.88%</b>	<b>\$27,282.96</b>
Exterior Doors		\$5,895.60
Exterior Windows		\$16,320.00
Interior Doors		\$5,067.36
<b>09 Finishes</b>	<b>15.31%</b>	<b>\$32,411.38</b>
Ceiling Finishes		\$4,729.33
Floor Finishes		\$9,529.31
Partitions		\$9,655.65
Wall Finishes		\$8,497.09
<b>11 Equipment</b>	<b>4.50%</b>	<b>\$9,520.00</b>
Other Equipment		\$9,520.00
<b>13 Special Construction</b>	<b>3.78%</b>	<b>\$8,012.89</b>
Communications & Security		\$2,822.54
Sprinklers		\$5,190.34
<b>15 Mechanical</b>	<b>11.99%</b>	<b>\$25,396.64</b>
Cooling Generating Systems		\$12,544.64
Domestic Water Dist		\$4,896.00
Plumbing Fixtures		\$7,956.00
<b>16 Electrical</b>	<b>6.46%</b>	<b>\$13,676.16</b>
Electrical Service & Distribution		\$13,676.16
<b>19 FF&amp;E</b>	<b>4.72%</b>	<b>\$10,000.00</b>
Interior FF&E allowance		\$10,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$211,743.27</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$1,164.59
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$21,174.33
<b>Total Additional Hard Cost</b>		<b>\$22,338.92</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$11,704.11
SIOH Conus	6.50%	\$15,976.11
Design	10.00%	\$23,408.22
08 MYr Inflation Fct	9.93%	\$28,317.44
<b>Total Soft Cost</b>		<b>\$79,405.88</b>
<b>Total Project Cost for Replacement</b>		<b>\$313,488.07</b>

**INSERT BUILDING 802 FLOOR PLAN HERE**

**AREAS AND OCCUPANCY SPREADSHEET TEMPLATE - Phase IV**

ROOM / SPACE	2-4 Units	5-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Lodging Facility on Install. Only	Note
	Note: Space requirements based on number of units in building for all non-Main Lodging Facility requirements, and number of units on the installation for Main Lodging Facility Requirements											
<b>Public Areas</b>												
Exterior Entrance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Vestibule	30	30	100	150	150	200	200	200	200	200		In Main Lodging facilities square footage included in Lobby
Lobby (includes vestibule at Main Lodging facilities)	200-300	200-300	300-500	500-800	500-800	800-1000	800-1000	1,000-1,200	1,000-1,200	1,200-1,500	X	Includes square footage of vestibule at Main Lodging facilities
Front Desk	1 station / 100 s.f.	1 station / 100 s.f.	2 station / 100 s.f.	2 station / 100 s.f.	3 station / 150 s.f.	3 station / 150 s.f.	3 station / 250 s.f.	3 station / 250 s.f.	4 station / 300 s.f.	4 station / 300 s.f.	X	
Bell Cart Station			2 carts / 24 s.f.	3 carts / 36 s.f.	3 carts / 36 s.f.	4 carts / 48 s.f.	4 carts / 48 s.f.	6 carts / 72 s.f.	6 carts / 72 s.f.	8 carts / 96 s.f.		Not required at facilities w/out interior corridors if building is retained.
Breakfast Bar (Seat/Svc)	200	200	550	550	550	550	550	550	750	1000	X	Needed at secondary facility, if it is a remote location. CFSC requirement min 550
Passenger Elevators at New Buildings			1 @ 64 s.f. at new buildings.	1 @ 64 s.f. 50-99 rooms 2 @ 64 s.f. 100-149 rooms	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. 400-499 rooms 3 @ 64 s.f. 500-599 rooms	3 @ 64 s.f. each	3 @ 64 s.f. each		
Passenger Elevators at Existing Buildings			Only at buildings if required by code or is 3 stories or more	1 @ 64 s.f. for 100-149 rooms Or if required by code or is 3 stories or more	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. 400-499 rooms 3 @ 64 s.f. 500-599 rooms	3 @ 64 s.f. each	3 @ 64 s.f. each		Existing buildings that exceed requirements, do not remove elevators
Stairs		Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each		
Public Corridors	**	**	**	**	**	**	**	**	**	**		Minimum 6' wide
Public Telephone Area			2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	3 phones / 18 s.f.	3 phones / 18 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.		House phone in secondary buildings. Pay phones & house phones at Main facility
Vending - Full Service			1 per building / 70 s.f.	70	70	70-105	105-140	140-210	210-280	280+		1 for every other floor to support up to 200 units / 70 s.f. each
Vending - Ice Only	1 per building / 30 s.f.	1 per building / 30 s.f.	1 per building / 30 s.f.	30	30	30-45	45-60	60-90	90-120	120+		1 for every other floor to support up to 200 units / 30 s.f. each
Women - Lobby	55 Unisex Toilet	55	100	200	200	260	260	315	315	350	X	
Men - Lobby		55	100	200	200	260	260	315	315	350	X	
Multi-Purpose Rm			250	250	250	250	250	250	250	250	X	
Study Rooms			See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 per 25 extended stay units of 250 s.f. each at posts with schools facilities
Guest Laundries	75	75	192	192-384	384-576	576-768	768-1152	1152-1536	1536-2112	2112+		CFSC requirement 2w/d for every 75 guest rooms
Gear Wash Rooms		At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each		Only at facilities with outdoor training
Guest Bulk Storage		See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 unit for every 4 family suites of 25 ea. 40 w/circ.
<b>Guest Rooms</b>												
Guest Room - Standard	300	300	300	300	300	300	300	300	300			
Guest Room - Ext. Stay	300	300	300	300	300	300	300	300	300			
Guest Room - Suites	450	450	450	450	450	450	450	450	450			

**AREAS AND OCCUPANCY SPREADSHEET TEMPLATE - Phase IV**

ROOM / SPACE	2-4 Units	5-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Lodging Facility on Install. Only	Note
	Note: Space requirements based on number of units in building for all non-Main Lodging Facility requirements, and number of units on the installation for Main Lodging Facility Requirements											
<b>Back-of-House Areas</b>												
Manager's Office	180	180	180	180	180	180	180	180	180	180	X	
Assist. Mgr. Off.	0	0	0	0 50-99 units 120 100-149 units	120	120	120	120	120	120	X	
Front Office Mgr.			100	100	100	100	100	100	100	100	X	
Admin. Offices		1 space / 100-125 s.f.	2 space / 200-250 s.f.	2 spaces / 200-250 s.f.	2 spaces / 200-250 s.f.	5 spaces / 500-600 s.f.	5 spaces / 500-600 s.f.	7 spaces / 800-900 s.f.	7 spaces / 800-900 s.f.	10 spaces / 1,100-1,200 s.f.	X	
Cash Room			50	75	75	100	100	125	125	150	X	
Luggage Storage	0	0	0	75	75	100	100	100	100	100	X	
Admin. Conf. Rm.			250	250	250	350	350	350	350	350	X	
Housekeeping Off.			120	120	120	120	120	120	120	120	X	
Dirty/Clean Linen Stor.	Incorporated in Housekeep.	Incorporated in Housekeep.	50	50	50	100	100	200	200	400	See Note	At all facilities w/out in-house laundry
In-House Laundry	Guest Laundry used for this function	Guest Laundry used for this function	500	500	500	500	500	750	750	900	X	CFSC requirement min 500 s.f.
Receiving Office			75	75	75	75	75	75	75	75	X	
Maintenance Area			100	175	175	250	250	400	400	600	X	
Kitchen Prep Room			150	150	150	150	150	150	150	150	X	facility, if it is a remote location.
Break Room			140	210	210	280	280	350	350	420		
Staff Toilet - Men				100	100	100	100	150	150	200		
Staff Toilet - Women				100	100	150	150	200	200	250		
Access Corridor			At main Lodging facilities only	**	**	**	**	**	**	**		
Receiving		75	150	150	150	150	150	150	150	200	X	
Housekeep. Rms.	128	128	128-512	512-1280	1280-1792	1792-2560	2560-3456	3456-5120	5120-6912	6912+		128 s.f. for each 15 guest rooms
Service Elevator at New Buildings			Only if 3 stories or more	1 @ 80 s.f. 100-149 rooms, Or if 3 stories or more	80	80	80	80	80	80		
Service Elevator at Existing Buildings					80	80	80	80	80	80		
Data/Commo Rm.	20	50	100	100	100	150	150	150	150	150		
Switch Closets	Incorporated in Data/Com *	Incorporated in Data/Com *	16 *	16-48 *	48-64 *	64-96 *	96-128 *	128-144 *	144-256 *	256+ *		1 closet of 16 s.f. for approximately 50 guest rooms.
Janitor Closet	Incorporated in Housekeep.	Incorporated in Housekeep.	50	50	50	50	50	50	50	50	X	Only at first floor of Main Lodging facility.
Mechanical Room	*	*	*	*	*	*	*	*	*	*		
General Stor. Rm.	100	100	500	500	500	500	500	500	500	500	X	
Bulk Storage Rm.	Incorporated in General Stor.	Incorporated in General Stor.	500	500	500	500	500	500	500	500	X	
Electrical Room	Incorporated in Data/Com *	50 *	140 *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *		One electrical room to serve no more than 100 rooms.
Elevator Equip.Rm.			84	84	84	84	84	84	84	84		
<b>EXTERIOR</b>												
Playground (Outdoor)											X	Play ground required at facilities with family stays.
Grounds Maintenance	400	400	400	400	400	400	400	400	400	400	X	

\* Mechanical/electrical/equipment Spaces to be determined by contractor based on appropriate code and recommended systems.

\*\* Corridors to be determined based on building layout.

**Note a 1 bedroom unit, will only include a vestibule of 30 s.f., guest laundry of 75 s.f., and a housekeeping room of 75 s.f.**